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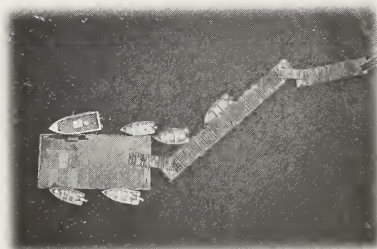
UNIVERSITY OF MASSACHUSETTS

AMHERST, MA 01003

OCT 17 1997

# Coastal Zone

Preliminary  
Technical Program  
Book



Charting the  
Future of  
Coastal Zone  
Management

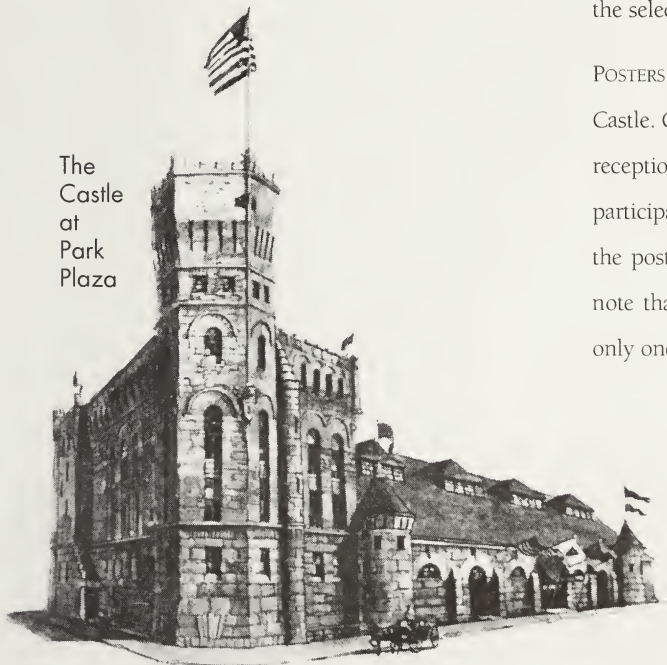


**Where have we been?**  
**Where are we going?**

# Guide to the Technical Program Book

**THIS BOOK details all the conference's plenary sessions, concurrent sessions, poster sessions, and roundtable discussions. A floorplan of the hotel is provided on the back cover of the book to help you find your way.**

The  
Castle  
at  
Park  
Plaza



EACH DAY of the conference will begin with a morning plenary session, which all participants are invited to attend. The remainder of the program is dedicated to smaller concurrent sessions—Sessions Schedules A through I. There is no separate registration for the concurrent sessions, and space availability is on a first-come-first-served basis.

CONCURRENT SESSIONS, listed in table format with coded themes, are included in this book. This coding is intended to help guide you in the selection of concurrent sessions.

POSTERS WILL BE displayed in the Park Plaza Castle. Coffee breaks, raffles, and one evening reception are scheduled in the Castle to give participants ample opportunity to check-out the posters and other Castle displays. Please note that each poster will be on display for only one day of the conference.

## Sessions Schedule A 11:00 am to 12:30 pm

<b>CH</b>	Protecting Habitats for Living Marine Resources
<b>PI</b>	Learning from Success: Case Studies of Successful Institutional Integration
<b>PP</b>	The "How To's" of Public Participation
<b>EV</b>	Tuning Coastal Management Programs for the Future
<b>CM</b>	Airsheds to Watersheds: Impacts of Atmospheric Deposition of Nitrogen on Estuarine and Coastal Systems: Where We've Been, Where We Are, and Where We Are Going

## Sessions Schedule C 4:00 pm to 5:40 pm

<b>ED</b>	Practical Approaches for Educating Decision-Makers
<b>PP</b>	Learning from International Experience in Community-Based Coastal Governance
<b>CE</b>	The Breach Contingency Plan
<b>UI</b>	Problems of the Urban Ocean--Managing Runoff in Los Angeles Coastal Waters: Stormwater Runoff into Santa Monica Bay: Legal Mandates, Management and Monitoring
<b>OS</b>	The <i>North Cape</i> Oil Spill
<b>IA</b>	Assessing Human Impact in Resource Management
<b>CM</b>	Effecting Change: Common Goals and Varied Responsibilities in America's Estuaries (Part II)
<b>CA/MA</b>	The Metropolitan District Commission's Back to the Beaches Program Joins Improved Coastal Public Access to the Cleanup of Boston Harbor
<b>CA</b>	Property Ownership and the Coast: Public vs. Private Interests
<b>ED</b>	Learning from Aquariums and Museums
<b>CM</b>	Vision 20/20: A Future of Coastal Management

## Sessions Schedule B 2:00 pm to 3:40 pm

<b>CA</b>	Coastal Access
<b>EC</b>	Integrating Economic Development and Coastal Resource Management
<b>CT</b>	Hardware and Software for Assessing Coastal Impacts
<b>ED</b>	Linking Environmental Education with Coastal Decision-Making
<b>I</b>	International Progress in Coastal Zone Management
<b>UI</b>	Problems of the Urban Ocean--Managing Runoff in Los Angeles Coastal Waters: Impacts of Urban Runoff on Human Health and the Environment in Santa Monica Bay
<b>CM</b>	Effecting Change: Common Goals and Varied Responsibilities in America's Estuaries (Part I)
<b>PI</b>	Breaking Down Institutional Barriers I
<b>CE/MA</b>	Boston Harbor Navigation Improvement Project: Navigating the Contaminated Sediment Highway to a Higher Road
<b>DR</b>	Dispute Resolution in Coastal Management
<b>IA</b>	Linking Science to Public Policy & Coastal Management

## Key to Themes

<b>CA</b> Coastal Access	<b>I</b> International
<b>CE</b> Coastal Engineering	<b>IA</b> Impact Assessment
<b>CH</b> Coastal Habitat	<b>MA</b> Massachusetts-Related
<b>CM</b> Coastal Management	<b>PI</b> Partnerships & Integration
<b>CT</b> Computer Technology	<b>PP</b> Public Participation
<b>DR</b> Dispute Resolution	<b>PR</b> Property Rights
<b>EC</b> Economics	<b>OS</b> Oil Spills
<b>ED</b> Education	<b>UI</b> Urban Issues
<b>EV</b> Program & Policy Evaluation	



### Sessions Schedule D 10:30 am to 12:00 pm

<b>CH</b>	Essential Fish Habitat: A New Fisheries Management Tool
<b>OS</b>	Beyond the Coast: Protecting Our Oceans
<b>PP</b>	It Takes a Community I
<b>CM</b>	Innovations in Technology for Coastal Management

### Sessions Schedule F 4:00 pm to 5:40 pm

<b>EC</b>	Making a Difference: Innovative Citizen Stewardship Programs
<b>PP</b>	It Takes a Community II
<b>CT</b>	Hardware and Software for Coastal Decision-Making
<b>CE</b>	Beach Nourishment and Stabilization: Recipes for a Healthy Coast
<b>CM</b>	National CZM Effectiveness Study--Findings and Recommendations
<b>OS</b>	From Response to Restoration: The <i>North Cape</i> Oil Spill, South Kingstown, Rhode Island
<b>CM</b>	Something Old, Something New: Lessons and Experiences in Estuarine Management
<b>IA</b>	Monitoring with Mussels--Benefits and Limitations to Coastal Managers
<b>ED</b>	The Education of Coastal Managers: The Role of Universities
<b>I</b>	Cooperative Ecosystem Management--Canada and the U.S.: Approaches and Experiences of Programs in the Gulf of Maine, Great Lakes and Puget Sound/ Georgia Basin
<b>CM/MA</b>	Stormwater Performance Standards and Best Management Practices in Massachusetts: Their Promise for Reducing Pollutant Loads to Coastal and Inland Waters

### Sessions Schedule E 2:00 pm to 3:40 pm

<b>CA</b>	Recreation and Tourism in the Coastal Zone
<b>CE</b>	New Initiatives for Resolving Dredged Material Disposal Issues
<b>CT</b>	Coastal Zone Geographical Information Systems (GIS)--An Integrating Technology for Informed Decision-Making
<b>I</b>	From the Beaufort Sea to the Wadden Sea: What's New in Integrated Coastal Management?
<b>UI</b>	The Urban Coast: Past Problems and Future Solutions
<b>CE</b>	Hurricane Opal: Coastal Management Implications, Tools and Strategies for Restoration
<b>PI</b>	Breaking Down Institutional Barriers II
<b>PP</b>	Translating Public Perception into Effective Decision-Making
<b>CH</b>	Watershed Approaches to Coastal Restoration: Landscape-Scale Implementation of Coastal Habitat Restoration
<b>CM</b>	Environmental Justice

### Key to Themes

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<b>ED</b> Education	<b>UI</b> Urban Issues
<b>EV</b> Program & Policy Evaluation	

# Thursday July 24

## Sessions Schedule G 11:30 am to 12:30 pm

<b>CE</b>	Mapping Coastal Hazards
<b>I</b>	International Perspectives in Integrated Coastal Management
<b>PP</b>	Striking a Balance: Improving Stewardship of Marine Areas

## Sessions Schedule I 4:00 pm to 5:40 pm

<b>ED</b>	Global Ocean Observing System (GOOS): Providing Information for Coastal Zone Managers
<b>PP</b>	Communications and Coastal Management
<b>CE</b>	Innovative Research-Based Approaches to Help Citizens, Government and Industry Minimize the Impact of Coastal Storms
<b>CM</b>	Innovations in Nonpoint Source Pollution Assessment and Management
<b>OS</b>	Preparing for the Worst: Oil Pollution Research and Technology
<b>I</b>	Flooding and Coastal Erosion in Western Africa: New Directions
<b>CM</b>	Learning from Success: Effective Resource Management and Planning
<b>CH</b>	Innovations in Marine Ecosystem Management: The Gulf of Maine Council Model
<b>CM</b>	The Coastal America Partnership: A National Overview
<b>CM</b>	National Ocean Service West Coast Projects

## Sessions Schedule H 2:00 pm to 3:40 pm

<b>EC</b>	Marine Resource Valuation: Incorporating Market and Non-Market Values
<b>CT</b>	Geographic Information System Applications for Comprehensive Coastal Management
<b>I</b>	From the Black Sea to the Yellow Sea: What's New in Integrated Coastal Management?
<b>UI</b>	Revitalizing Urban Waterfronts
<b>CE</b>	Advances in Dredged Material Disposal
<b>PI</b>	Strategies for Reducing Institutional Gridlock
<b>I</b>	Regionalization of the International Coral Reef Initiative
<b>EV</b>	Evolving Approaches for the Assessment and Evaluation of Integrated Coastal Management Programs
<b>CM</b>	Agriculture in the Coastal Zone
<b>CH/MA</b>	Pollution Abatement for Quincy Bay and Other Tributaries to Boston Harbor
<b>UI</b>	Urban Estuarine Management

## Key to Themes

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<b>EV</b> Program & Policy Evaluation	

**Welcome** Imperial Ballroom 8:30 am to 9:00 am

**Massachusetts Governor William Weld and Boston Mayor Thomas Menino**

**Plenary Session** Imperial Ballroom 9:00 am to 10:30 am

## **Rethinking Integrated Coastal Management into the Next Millennium**

The past 25 years of environmental management have been built on principles laid down in the discussions of the early 1970s in the U.S. that lead to the Coastal Zone Management Act, National Environmental Policy Act, Clean Water Act and other environmental legislation. There were early and dramatic environmental improvements, such as swimmable/fishable waters and preservation of coastal wetlands, but achievements have lagged in recent years; current U.S. political sentiment is antithetical to 'command/control' approaches and suspicious of the federal tendency towards one size fits all. At the same time, however, the concept of integrated coastal management has been expanded, modified and adapted around the world.

This panel will take a fresh look at the principles and performance indicators for integrated coastal management. It will provoke a broad discussion about just what constitutes 'measures of success' under a variety of cultural and environmental conditions. It will help to frame a wide discussion of the future vision for coastal management that will be further expanded upon beyond CZ 97,

looking toward the International Year of the Ocean in 1998. This panel is being developed with the direct participation of the H. John Heinz III Center for Science, Economics and the Environment.

### **Moderator**

**Robert White**

Senior Fellow

H. John Heinz III Center for Science, Economics and the Environment  
Washington, D.C.

### **Keynote Address**

**Honorable Olympia Snowe**

(invited)

United States Senate  
Auburn, Maine

### **Panelists**

**Peter Douglas**

Executive Director  
California Coastal Commission  
San Francisco, California

**Doug Hall**

Vice President  
The Nature Conservancy  
Arlington, Virginia

**Larry Hildebrand**

Environment Canada  
Nova Scotia, Canada

**Evan Cayetano**

Program Director  
Belize Center for Environmental Studies  
Belize City, Belize

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**Break** Park Plaza Castle 10:30 am

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**Tuesday**  
**July 22**

## Sessions Schedule A 11:00 am to 12:30 pm

### **Protecting Habitats for Living Marine Resources**

*Protecting Marine Biodiversity:*

*Quantitative Study Results.* Paul C. Ticco, Massachusetts Maritime Academy, USA.

*Aquatic Habitat Monitoring and Management: Linkages to Water Quality and Shellfish Management.* Christopher F. Smith, Cornell Cooperative Extension of Suffolk County, USA.

*Development of the Technical Basis and a Management Strategy for Reopening a Closed Shellfish Area.* James D. Reilly, William Kirby-Smith, and Michael K. Orbach, Duke University, USA.

*Aquatic Farming: A Model Industry for Alaska.* Kerry Howard and Jackie Timothy, Alaskan Division of Governmental Coordination, USA.

*Restoring Anadromous Fish to the Atlantic Coast.* Robert Michelson, Photograph by Michelson, USA.

### **Learning from Success: Case Studies of Successful Institutional Integration**

*The Greenwich Bay Initiative: An Innovative Approach to Watershed Management.* J. Stevens, M. Pilaro, and D. Geagan, Warwick Planning Department, USA.

*Intermunicipal Group Works to Reduce Pollution in a Long Island Sound Bay.* Amy Waterman, Town of North Hempstead Planning Department, USA.

*Innovation, Integration, and Implementation: A Success Story for the Massachusetts Coastal Nonpoint Program.* Jan Peter Smith and Bruce Kent Carlisle, Massachusetts Coastal Zone Management, USA.

*Innovative Approaches to the Restoration of Degraded Tidal Wetlands in Connecticut.* Ron Rozsa, Connecticut Department of Environmental Protection, USA.

*Sustainable Development and Wastewater Reclamation.* Charlie Hunsicker, Manatee County Planning Department, USA; Mark D. Hilton, Sarasota Bay National Estuary Program, USA.

### **The "How To's" of Public Participation**

*Consensus-Building in the Peconic Estuary Program.* Kevin McDonald, Peconic Estuary Program Citizens Advisory Committee, USA.

*Stakeholder Participation and the Development of Marine Protected Areas in the Caribbean.* Leah L.M. Bunce and Michael B. Mascia, Duke University, USA.

*International Exchanges as Catalysts for Public Involvement.* Judith M. LaBelle and Linda Donovan Harper, The Countryside Institute, USA.

*Addressing Indigenous Interests in Management of the Great Barrier Reef Marine Park.* Joan Phillips, Great Barrier Reef Marine Park Authority, Australia; Robin Clark, Queensland Department of Environment, Australia.

### **Tuning Coastal Management Programs for the Future**

*Synthesis and Assessment of Section 312/315 Evaluations: Progress in Achieving Coastal Zone Management Act Goals.* Vickie A. Allin, NOAA/Office of Ocean and Coastal Resource Management, USA.

*Possible Future Directions for Coastal Zone Management in Australia.* Robert Kay, Department of Transport (Maritime Division), Australia; Chris Lester, Department of Natural Resources and Environment, Australia.

*Evaluation of Coastal Zone Management Plans in Portugal.* Filomena Martins and Fátima Alves, Universidade de Aveiro, Portugal; Orlando Borges, National Water Institute, Portugal.

*National and International Efforts at Integrated Coastal Management: Definitions, Achievements, and Lessons.* Jens Sorensen, University of Massachusetts Boston, USA.

*Government Downsizing and Restructuring: Effects on Coastal Zone Management in the 1990's.* Laurie J. McGilvray and Joseph Uravitch, NOAA/Office of Ocean Coastal and Resource Management, USA.

**Airsheds to Watersheds: Impacts of Atmospheric Deposition of Nitrogen on Estuarine and Coastal Systems Where We've Been, Where We Are, and Where We Are Going**

*Atmospheric Nitrogen Input to Coastal Areas: Chronic Exposure to Episodic Events.* Richard Valigura, NOAA, USA.

*Long-Term Trends in Atmospheric Deposition of Nitrogen.* James Lynch, Pennsylvania State University, USA.

*Contribution of Atmospheric Deposition to Nitrogen Loadings in Tampa Bay--Implications for Water Quality and Living Resources.* Holly Greening, Tampa Bay National Estuary Program, USA.



*Nitrogen Depositions to Massachusetts Bay Region: Translation to Management Actions.* Diane Gould, Massachusetts Bay National Estuary Program, USA.

*Integrated Cross-Media Nitrogen Models of Chesapeake Bay's Airshed, Watershed, and Estuary.* Lewis Linker, EPA Chesapeake Bay Program Office, USA.

*EPA's Great Waters Program: Making the Connections for Decision-Making and Policy.* Melissa McCullough, EPA Office of Air and Radiation, USA.

## Lunch 12:30 pm to 2:00 pm

**Keynote Address: Cardinal Bernard Law, Archdiocese of Boston** (invited)  
*Rights and Responsibilities of the Fishing Community*

## Sessions Schedule B 2:00 pm to 3:40 pm

### Coastal Access

*Connecting the Coast: Gateway to Coastal Georgia.* Sue Snaman Edwards, EDAW, Inc., USA.

*These (Massachusetts) Shores Were Made for Walking.* Dennis Ducsik, and Ivy Valerie Schram, Massachusetts Coastal Zone Management, USA.

*Providing New Coastal Public Access Opportunities During Times of Fiscal Constraint.* David Kozak and Mary DiGiacomo Cohen, Connecticut Department of Environmental Protection, USA.

*Creating Sustainable Communities: A Comprehensive Regional Approach to Creating Linkages Between an Area's Scenic Waterways, Greenways, and Cultural and Historical Jewels.* Jaime A. Doubek, Sarasota Bay National Estuary Program, USA; Chris Abbott, National Park Service, USA.

### Integrating Economic Development and Coastal Resource Management

*The Other Maine: Doing Community and Economic Development in*

*Coastal Washington County.* Stephen A. Cole and Katrina Van Dusen, Maine State Planning Office, USA.

*Human Health, Natural Resource Protection, and Economics Regarding On-Site Disposal Systems.* Mark D. Hilton, Sarasota Bay National Estuary Program, USA.

*How Investment in a Clean Watershed Fosters Economic Opportunity: Evidence from Great Lakes/St. Lawrence River Waterfront Communities.* Karl Schaefer, Environment Canada, Canada.

*The Shore Protection Project of the Future: Overcoming Today's Gridlock.* John J. O'Connell, Solomon, Zauderer, Ellenhorn, Frischer and Sharp, USA.

### Hardware and Software for Assessing Coastal Impacts

*Remote Sensing of Changing Land-Use Patterns and Their Management: A Case Study in Mahanadi Estuarine Mangrove Region, Orissa, India.* P. Kumar, N.C. Das, S. Devi, R.C. Samal, and G. Behera, Orissa Remote Sensing Applications Centre, India.

*Developing Integrated Coastal Zone Information Management Tools.*

Cary Gaunt and Wilson Hom, Science Applications International Corporation, USA; Richard Batiuk, USEPA Chesapeake Bay Program, USA; Lowell Bahner, NOAA, USA; Robert Magnien, Maryland DNR, USA.

*Use of Remotely Sensed Data, Hydrodynamic Modeling, and GIS to Assess the Impacts of Thermal Effluent in the Narragansett Bay Estuary.* John F. Mustard, Brown University, USA; Craig Swanson, Applied Science Associates, USA; Avijit Sen, Brown University, USA; Christopher Deacutis, Rhode Island Department of Environmental Management, USA.

*Planning for Sustainable Development of the Croatian Coastal Zone: Island Cres Pilot Project.* Anamarija Frankić and Carl Hershner, College of William and Mary, USA.

*Colour Infrared Aerial Digital Photography in Coastal Zone Dune Management.* Richard Curr and Alexander Koh, Bath College, UK;

# Tuesday

## July 22

Esther Edwards and Allan Williams, University of Glamorgan, UK.

### **Linking Environmental Education with Coastal Decision-Making**

*The Jupiter Inlet-Loxahatchee*

*Initiative: Linking Education and Research.* Mary Ridler, Coastal Research and Education, Inc., USA.

*LEO-15 (Long-term Ecosystem*

*Observatory): Bringing the Ocean to the Classroom.* Janice McDonnell, Rutgers University, USA.

*The Role of the National*

*Oceanographic Partnership Program in Linking Research and Education.*

Rick Spinrad, Consortium of Oceanographic Research and Education, USA

*The National Estuary Research*

*Reserves Coastal Decision-Makers Workshop.* Ginger Hinchliff, Rookery Bay National Estuary Research Reserve, USA.

*Massachusetts Bays Educators*

*Resource Guide to the CCMP and Stewardship Study Group Program: A Model for Translating Coastal Watershed Research and Issues to the Education Community.* Faith Burbank and Barbara Waters, Massachusetts Bay Education Alliance, USA.

### **International Progress in Coastal Zone Management**

This session will explore some of the regional and international initiatives that have begun as a result of the 1992 Earth Summit (UNCED) as well as other international conventions and agreements. This session will assess the progress

of these initiatives and contemplate future directions. Proposed panelists include:

Marea E. Hatzios, The World Bank, USA.

Sian Pullen, World Wildlife Fund for Nature, UK.

Tertu Melvasalo, United Nations Environment Program, USA.

Leonard Nurse, Barbados Coastal Management Unit, West Indies

### **Problems of the "Urban Ocean"--Managing Runoff in Los Angeles Coastal Waters: Impacts of Urban Runoff on Human Health and the Environment in Santa Monica Bay**

*Stormwater Runoff into Santa Monica Bay: Evolving Impact on the Coastal Ocean.* Burton H. Jones, University of Southern California, USA; Libe Washburn, University of California Santa Barbara, USA; Steven Bay and Ken Schiff, Southern California Coastal Water Research Project, USA.

*Stormwater Runoff into Santa Monica Bay: Effects on Surface Water and Sediment Toxicity.* Steven Bay, Darrin Greenstein, Andrew Jirik, and Ann Zellers, Southern California Coastal Water Research Project, USA.

*Stormwater Runoff into Santa Monica Bay: Benthic Impacts in the Nearshore Coastal Zone.* Kenneth Schiff, Liesl Tiefenthaler, David Tsukada, Mary Bergen, Southern California Coastal Water Research Project, USA.

*An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay.* Robert W. Haile, Kevin Barrett, John

Dermand, Carolyn Ervin, Alice Glasser, Nina Harawa, et al., University of Southern California, USA.

*Presence of Potentially Hazardous*

*Human Viruses from Stormdrain Discharges into Santa Monica Bay.*

R.T. Noble and J.F. Griffith, University of Southern California, USA.

### **Effecting Change: Common Goals and Varied Responsibilities in America's Estuaries (Part I)**

In this first of a two part session, a panel of five presenters from the National Oceanic and Atmospheric Administration, Environmental Protection Agency, US Fish and Wildlife Service, Restore America's Estuaries, and The Nature Conservancy will briefly identify their respective roles in estuarine protection and then discuss commonalities and differences among the programs. Panelists will identify areas where coordination among programs would lead to better estuarine management and explore obstacles to coordination such as regulatory and budget constraints. Panelists include:

Randall Schneider and Nathalie Peter, NOAA/Sanctuaries and Reserves Division, USA.

Naki Stevens, Restore America's Estuaries, USA.

Darrell Brown, US Environmental Protection Agency, USA.

Audrey Pritchard, The Nature Conservancy, USA.

Rob Shallenberger, US Fish and Wildlife Service, USA.

### Breaking Down Institutional Barriers I

#### *Decentralized Wastewater Planning*

*and Management in Coastal Massachusetts.* Tara E. Tracy, US Environmental Protection Agency, USA; Andrea L. Arenovski, Marine Studies Consortium, USA.

#### *Partnerships to Mitigate the Damages of Natural Hazards in Coastal Areas.*

Lawrence Frank, Federal Emergency Management Agency Region IV, USA; David Brower, University of North Carolina Chapel Hill, USA.

#### *Legal and Institutional Framework for Coastal Zone Environmental Management in Sierra Leone.*

Raymond G. Johnson and Reynold G. Johnson, University of Sierra Leone, Sierra Leone.

#### *Intergovernmental Shellfish Bed Restoration Program: A Model for Cooperative Delivery of Technical Assistance to Coastal Communities.*

Diane M. Gould, Massachusetts Bays National Estuary Program, USA.

### Boston Harbor Navigation Improvement Project:

#### *Navigating the Contaminated Sediment Highway to a Higher Road*

*The Project.* Peter Jackson, US Army Corps of Engineers, USA.

*The Local Sponsor.* Janeen Hansen, Massachusetts Port Authority, USA.

*The State Agency Perspective.* Deerin Babb-Brott, Massachusetts Coastal Zone Management, USA.

*Stakeholder Involvement.* Larry Rosenberg, US Army Corps of Engineers, USA.

*The Environmental Groups' Concerns.* Joan LeBlanc, The Boston Harbor Association, USA.

*The Environmental Process.* Catherine Demos, US Army Corps of Engineers, USA.

### Dispute Resolution in Coastal Management

#### *Managing Conflicting Interests on Barrier Beaches in Massachusetts.*

Rebecca L. Haney, Massachusetts Coastal Zone Management, USA.

*Seeking Collaborative Solutions to Problems Stemming from Aquaculture and Wildlife Interactions.* Daniel S. Morris and Mary Colligan, National Marine Fisheries Service, USA.

*Enforceable Policies and Standards: Do They Work and Are There More Effective Alternatives?* Glenn A. Seaman, Alaska Department of Fish and Game, USA.

*The Sears Island Cargo Port: A Case Study in the Evolution of Coastal Habitat Conservation.* Jonathan M. Kurland, NOAA/National Marine Fisheries Service, USA.

### Linking Science to Public Policy and Coastal Management

*A Risk-Based Approach to Watershed/Ecosystem-Level Resource*

*Management.* Cornell J. Rosiu, Camp Dresser & McKee, Inc., USA.

*The Role of Watershed Simulations in Integrated Cross-Media Coastal Resources Planning.* Djamel Benelmouffok, Katherine Bennett, and Wilson Hom, Science Applications International Corporation, USA; Lewis C. Linker, US EPA Chesapeake Bay Program, USA; Gary Shenk, Chesapeake Research Consortium, USA.

*Linking Land-Use Planning and Water Quality Simulation: Tools for Estuarine Water Quality Protection.* Kenneth Pruitt, Cary Gaunt, and Katherine Bennett, Science Application International Corporation, Inc., USA; Maria (Menchu) Marinez, US Environmental Protection Agency, USA; Barbara Butler, Chesapeake Research Consortium, USA.

*Development of a TMDL Framework for the Providence and Seekonk Rivers, Rhode Island.* A. Christian Turner, Rhode Island Department of Environmental Management, USA; Daniel L. Mendelsohn, Applied Science Associates, Inc., USA.

*Trigger Planning Tightens the Relationship Between Monitoring and Pollution Abatement: The Massachusetts Water Resources Authority Contingency Plan.* Michael S. Connor, Michael J. Mickelson, Kenneth E. Keay, and Leo Sommaripa, Massachusetts Water Resources Authority, USA.



# Tuesday

## July 22

### Sessions Schedule C 4:00 pm to 5:40 pm

#### **Practical Approaches for Educating Decision-Makers**

*Educating Coastal Decision Makers*

Through "Estuary-Net." Jim List, National Estuarine Research Reserve System, USA.

*The Maine Islands: Tools for Sustaining Healthy Island Environments and Economies.* Katrina Van Dusen, Maine State Planning Office, USA.

*An Innovative Approach to Training and Capacity Building for Integrated Coastal Management.* Brian Needham, University of Rhode Island, USA.

*Networks, Communication, and Decision-Making in Integrated Coastal Zone Management.* David Masters, The Manchester Metropolitan University, UK.

#### **Learning from International Experience in Community-Based Coastal Governance**

*A Common Methodology for Learning from International Coastal Management Experience.* Stephen Olsen, University of Rhode Island, USA.

*Building International, Coastal Programs: The Donors' Perspective.* Louise Scura, The World Bank, USA.

*The Institutional Dimension in International Coastal Management.* Kem Lowry, University of Hawaii, USA.

*Impact Evaluation of Community-Based Coastal Management Projects.* Richard Pollnac, University of Rhode Island, USA.

*Community-Based Coastal Governance: Learning from International Experience.* Mark T. Imperial, Indiana University, USA.

#### **The Breach Contingency Plan**

*The Breach Contingency Plan:*

Objectives, Study Components, and

*Planning and Coordination Efforts.*

Joseph Vietri, Stuart Piken, Lynn Bocamazo, and Clifford Jones, US Army Corps of Engineers, USA; John R. Headland and W. Gray Smith, et al., Moffatt & Nichol Engineers, USA.

*Impacts of Barrier Island Breaching:*

*Hydrodynamics and Barrier Breach/Inlet Stability Analyses.* Feng Jiang and John R. Headland, Moffatt & Nichol Engineers, USA; Lynn Bocamazo, US Army Corps of Engineers, USA.

*Technical Approaches to the Breach Contingency Plan.* W. Gray Smith, John R. Headland, Moffatt & Nichol Engineers, USA; Stuart Chase, US Army Corps of Engineers, USA.

*Economics, Risk, and Uncertainty Input to The Breach Contingency Plan.*

Mike Cannon and Adam Slutsky, URS Greiner, USA; W. Gray Smith, Moffatt & Nichol Engineers, USA.

*Environmental Considerations in Responding to Barrier Island Breaches.* Pete Wepler, US Army Corps of Engineers, USA.

#### **Problems of the Urban Ocean--Managing Runoff in Los Angeles Coastal Waters:**

**Stormwater Runoff into Santa Monica Bay: Legal Mandates, Management and Monitoring**  
*From Planning to*

*Implementation...Evolution of the Storm Water Management Program in the Santa Monica Bay Watershed.* Marianne Yamaguchi, Santa Monica Bay Restoration Project, USA; and Catherine Tyrrell, Los Angeles Regional Water Quality Control Board, USA.

*Stormwater Mandates: What Action*

*Does the Clean Water Act Require to Control Stormwater Discharges to Santa Monica Bay?* Gail Ruderman Feuer, Natural Resources Defense Council, USA.

*Stormwater Monitoring Considerations for Assessing BMP Selection for Performance in the Santa Monica Bay Watershed.* Eric W. Strecker and Peter Mangarella, Woodward-Clyde Consultants, USA.

*Watershed Approach to Dredging and Disposal in Marina Del Rey Harbor--A Case Study.* Guangyu Wang, Santa Monica Bay Restoration Project, USA.

*Stormwater Quality Management in Santa Monica Bay.* Donald L. Wolfe, Los Angeles County Department of Public Works, USA.

#### **The North Cape Oil Spill**

*The Culture of Response: Community and Institutional Reaction to a Disaster Event: The Case of the North Cape Oil Spill.* Christopher L. Dyer, University of Rhode Island, USA.

*Legislative Agenda-Building in the Wake of the North Cape Oil Spill: The Critical Role of Initial Media Accounts and Witness Testimony.* Dennis W. Nixon, University of Rhode Island, USA.

*Information Management and the Oil Pollution Act of 1990: The Case of the North Cape Oil Spill.* William R. Gordon, Jr., University of Rhode Island, USA.

*Impacts of the North Cape Oil Spill on Natural Resource Communities.* Richard Burroughs and Christopher L. Dyer, University of Rhode Island, USA.

*Rhode Island's Legislative Response to the North Cape Oil Spill: The*



*Expanding Role of State Government in Oil Pollution Prevention.* Elise E. Golden and Louise M. Kane, University of Rhode Island, USA.  
*The North Cape Oil Spill: A Silver Lining: How to Use an Environmental Disaster as a Learning Tool.* Niels West, University of Rhode Island, USA.

### **Assessing Human Impact in Resource Management**

*The Health, Ecological, and Economic Dimensions of Global Change.* Paul Epstein, Harvard Medical School, USA.

*Potential Surprises in Future Demographic Trends.* Peter Leigh, NOAA/National Marine Fisheries Service, USA.

*A Study of Boating-Related Habitat Alterations as an Ecosystem Stressor to Clarify Management Concerns.* Richard E. Crawford, Waquoit Bay National Estuarine Research Reserve, USA; Robert B. Sherman, Town of Mashpee, USA.

*Monitoring Massachusetts Coastal Waters to Evaluate Potential Wastewater Discharge Impacts.* Donald Galya, John Bleiler and Kenneth Hickey, ENSR, USA.

*A Simple Methodology for Tidal Crossing Assessment.* David C. Mountain, Timothy A. Purinton, and Janet A. Pillion, Parker River Clean Water Association, USA.

### **Effecting Change: Common Goals and Varied Responsibilities in America's Estuaries (Part II)**

The second of two sessions discussing enhanced cooperation and coordination in protecting America's estuaries. This session will focus on case studies of specific estuaries in

the United States. The case studies will examine sites where two or more management programs have coordinated efforts to manage and protect estuaries.

Panelists to be announced.

### **The Metropolitan District Commission's Back to the Beaches Program Joins Improved Coastal Public Access to the Cleanup of Boston Harbor**

*Introduction.* Joseph Orfant, Metropolitan District Commission, USA.

*Dorchester Shores Beach Restoration.* Steven Hamwey, Sasaki Associates, Inc., USA.

*Constitution Beach Project, East Boston.* Nina Brown, Brown and Rowe, Inc., USA.

*South Boston Beaches Rehabilitation Project.* William Taylor, Carol R. Johnson Associates, Inc., USA.

*Winthrop Beach Rehabilitation Project.* Presenter to be announced.

*Boston Harbor Islands State Park.* Donald Fraser, Metropolitan District Commission, USA.

### **Property Ownership and the Coast: Public vs. Private Interests**

*New Directions: Watershed Land Acquisition and Restoration in the Rookery Bay National Estuarine Research Reserve.* Gary Lytton, Florida Department of Environmental Protection, USA.

*The Role of Coastal Public Property in Spanish Integrated Management of the Coast.* Francisco J. Montoya, Jordi Galofré, Ministry of Environment, Spain.

*Community Legal and Institutional*

*Studies.* Eusebio R. Jacinto, Jr., Tambuyog Development Center, Philippines.

*Balancing Business and Conservation Needs through Strategic Coastal Zone Management and Planning.* Diane Awo Dumashie and Hance Smith, University of Wales, UK.

### **Learning from Aquaria and Museums**

This session will explore the various developmental stages of educational materials such as exhibits, brochures, and posters. It will begin with a slide show tour of the New England Aquarium's most recent exhibit: Georges Bank and the New England Fisheries. An overview of this exhibit's development process will follow, as well as a discussion on similar projects across the United States.

*Overview of the Development Process.* Alexander Goldowsky, New England Aquarium, USA.

*Arm Chair Tour of the Georges Bank Exhibit.* Ari Epstein, New England Aquarium, USA.

*Front End Evaluation: Example from the Florida Keys Sanctuary.* Rebekah Resnick, University of Rhode Island, USA.

*Formative Evaluation: Example from the Georges Bank Exhibit.* Alexander Goldowsky, New England Aquarium, USA.

*Summative Evaluation: Examples and Goals.* Billy Spitzer, New England Aquarium, USA.

### **Vision 20/20 A Future of Coastal Management**

Want to see the future?

<http://www.nos.noaa.gov/ocrm/vision2020.html>

### Poster Session Park Plaza Castle 10:00 am to 5:00 pm

*Two Federal Coastal Resource Protection Grant Programs.* Robert D. Pacific, US Fish and Wildlife Service, USA.

*Sewage Sludge Disposal Monitoring at the 106-Mile Site: Summary of Findings.* Carlton D. Hunt, Battelle, USA.

*Elgrass (*Zostera marina*, L.) Transplanting as a Mechanism for Restoration of Estuarine Habitat.* Ryan Davis and Frederick Short, University of New Hampshire, USA.

*NOAA's Estuarine Eutrophication Survey: Selected Regional Results.* S.B. Bricker, C. Clement, D. Pirhalla, S. Frew, M. Harmon, C. Alexander, et al., NOAA/National Ocean Service, USA.

*Changes in the Fish Community of Plum Island Sound, Massachusetts from 1967 through 1994.* Robert Buchsbaum, Massachusetts Audubon Society, USA; Linda Deegan and Robert Garritt, The Ecosystem Center, USA.

*Essential Fish Habitats: Applying Technology to Living Marine Resource Management.* Ramona Schreiber, NOAA/National Marine Fisheries Service, USA.

*Fish Community and Feeding Habitats at a Pre-Fabricated Concrete Artificial Reef in Delaware Bay, USA;* K.L. Foster, Battelle, USA; F. W. Steimle, NOAA/National Marine Fisheries Service, USA; W.C. Muir, US Environmental Protection Agency, USA; R.K. Kropp, Battelle, USA; B.E. Conlin, US Army Corps of Engineers, USA.

*Development of a Landscape Scale Habitat Suitability Model for Anadromous Fishes.* Rebecca Boger and Carl Hershner, College of William and Mary, USA.

*Everglades Restoration and the Ancillary Benefits to Lake Worth Lagoon, Florida.* Jefferson B. Giddings, South Florida Water Management District, USA.

*Conversion of Fishing Vessels and Training of Fishermen for Oceanographic Surveys.* John H. Ryther, Jr., Charlotte M. Cogswell, and John H. Ryther, Sr., CR Environmental, Inc., USA.

*Applying GIS Technology to Coastal Risk Assessment: Jekyll Island, GA.* Rachel S. Boulay, David M. Bush, and Robert J. Hickey, State University of West Georgia, USA.

*A Conceptual Model for Ecological Risk Assessment in the Watershed of a Small Estuary.* D. Dow, NOAA/National Marine Fisheries Service, USA; M. Geist, Waquoit Bay National Estuarine Research Reserve, USA; J. Gerritsen, Tetra Tech, Inc., USA; S. Marcy, J. Miller and P. Tyler, US Environmental Protection Agency, USA.

*ESTURIALES Life Project: "Cybestuaries".* Dr. Richard Perry, Sunderland City Environment Department, UK.

*The COMPAS Framework: Marine Desktop Information Tools Addressing Florida's Coastal and Ocean Management Concerns.* Christopher Friel and Robert C. Hudson, Jr., Florida Marine Research Institute, USA.

*A Comparative Study of Nutrients and Water Quality Parameters in Estuaries and Nearshore Waters of Southeastern Nigeria.* Effiom E. Antia and Jack O. Showell, University of Calabar, Nigeria.

*Renewing Economic Sustainability After Florida's Net Ban: Is Aquaculture The Solution for the 21<sup>st</sup> Century?* David E. Vaughn and Amy W. Adams, Harbor Branch Oceanographic Institution, USA.

*California and the World Ocean '97: Results of the March 1997 Conference and Observations Regarding Its Impact on California Ocean Policy.* Orville T. Magoon, Coastal Zone Foundation, USA; Hugh Converse, US Army Corps of Engineers, USA; Brian E. Baird and Melissa Miller-Henson, Resources Agency of California, USA.

*Interpreting the Coastal Zone at Massachusetts State Parks.* Karl W. Honkonen, Massachusetts Department of Environmental Management, USA.

*Hurricane Storm Surge, The SLOSH Model and Its Prediction of the Floodplain for the US Atlantic and Gulf Coastal Regions.* Victor Wiggert and Brian Jarvinen, NOAA/National Hurricane Center, USA.

*The Potential Effects of Sea Level Rise on Salt Marshes in Coastal North Carolina.* Christopher Robert Perle and Carl Hershner, College of William and Mary, USA.

*San Francisco Bay Area Wetlands Ecosystem Goals Project.* Michael Monroe, US Environmental Protection Agency, USA; Carl Wilcox, State of California Resources Agency, USA.

# Wednesday July 23

## Plenary Session Imperial Ballroom 8:30 am to 10:00 am

### **Can Sustainable Development Be Achieved in Coastal Communities?**

Many challenges exist in achieving sustainable development in our communities. The challenges include gaining a broad public understanding of the concept of sustainable development, visualizing what it takes to promote sustainable activities, and providing the available tools for promoting a sustainable economy.

The lead speaker will set the stage for the need for sustainable development. Dr. Woodwell is a leading scientist whose research has focused on biodiversity and global ecosystem health. Scientists believe that it is a moral imperative for government to work toward conserving biodiversity and ecosystem health similar to government's responsibility of protecting the public's health. They have called for an integrated approach to global growth rather than the traditional confrontation between preservationists and economic proponents. A panel will focus on examples of initiatives that are promoting the planning and implementation of sustainable economic activities in coastal areas and the lessons learned from their experiences. Panelists will provide examples from a spectrum of scenarios, including urbanized coastal areas and rural island

### **Moderator**

Barbara E. Gray (invited)  
Former State Legislator  
Commonwealth of Massachusetts  
Boston, Massachusetts

### **Keynote Address**

George Woodwell, Ph.D.  
Founder and Director  
Woods Hole Research Center  
Woods Hole, Massachusetts

### **Panelists**

#### **Trudy Cox**

Secretary of Environmental Affairs  
Commonwealth of Massachusetts  
Boston, Massachusetts

#### **Honorable Joseph P. Riley, Jr.**

Mayor  
Charleston, South Carolina

#### **Andy Rosenberg**

Director, Northeast Region  
National Marine Fisheries Service  
Gloucester, Massachusetts

#### **Peter Espeut**

Executive Director  
South Coast Conservation  
Foundation  
Kingston, Jamaica

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## **Break Park Plaza Castle 10:00 am**

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### Sessions Schedule D 10:30 am to 12:00 pm

#### **Essential Fish Habitat: A New Fisheries Management Tool**

Because of the rapidly evolving nature of this issue, key panel speakers will best be identified after guidance is released in late December 1996, for public review and discussion. Speakers will include senior managers of the National Marine Fisheries Service, senior representatives from a Fishery Management Council and a Marine Fisheries Commission, a representative from state government, and other informed experts. Session Organizer: Dail W. Brown, NOAA/NMFS, USA.

#### **Beyond the Coast: Protecting Our Oceans**

*Outer Continental Shelf Oil and Gas Lease Sales in the Beaufort Sea: Conflict and Cooperation.* Glenn Gray, Alaska Division of Government Coordination, USA.

*Natural Resource Damage Assessment for Outer Continental Shelf Oil Spills.* James F Bennett and Cheryl Anderson, Minerals Management Service, USA.

*Ensuring Respect for Particularly Sensitive Sea Areas.* Kristina M. Gjerde, University of Hull Law School, UK; Sian Pullen, World Wide Fund for Nature, UK.

#### **It Takes a Community I**

*The Contribution of Town and Country Planning to Coastal Zone Management in England and Wales.* Jane Tanssik, University of Portsmouth, UK.

*Significance of Cultures and Traditions in Coastal Regulation: Roatán, Islas de la Bahía, Honduras.* Nelia Badilla Forest, California Coastal Conservancy, USA.

*Sustainable Coastal Area Development: A Community-Based Coastal Resources Management Strategy.* Ephraim Patrick Batungbacal and Francis Ronald Perez, Tambuyog Development Center, Philippines.

*Innovative Approaches to Community-Based Resource Management Planning.* Gregory L. Capobianco, New York Coastal Management Program, USA.

#### **Innovations in Technology for Coastal Management**

*Real-Time, In-Situ Instrumentation for the Detection of Pollutants in the Coastal Environment.* Steven M. Rudnick and Robert F. Chen, University of Massachusetts Boston, USA.

*Hydroacoustic Basis for Detection and Characterization of Seagrasses.* Bruce Sabol, Waterways

Experiment Station, USA; Elena McCarthy, US Naval Undersea Warfare Center, USA; Kenneth Rocha, US Environmental Protection Agency, USA.

*Artificial Reefs and Other Emerging Technologies: Prospects for Success.* Michael S. Bruno, Thomas O. Herrington, Kelly L. Rankin, and Kathryn E. Ketteridge, Stevens Institute of Technology, USA.

*Kawaihae Coral Transplant Project.* John J. Naughton, NOAA/National Marine Fisheries Service, USA.

*Alternative Energy Sources for the Coastal Zone of Baja California, México.* Ana Luz Quintanilla-Montoya, David W. Fischer, and Margarito Quintero-Núñez, Universidad Autónoma de Baja California, México.

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### Lunch 12:00 pm to 2:00 pm

#### **International Luncheon**

Gunnar Kullenberg, UNESCO, Intergovernmental Oceanographic Commission (invited)  
Terttu Melvasab, UNEP, Office of Water (invited)

**Roundtable Lunch** (see Roundtable abstracts at the back of this book for details)

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## Sessions Schedule E 2:00 pm to 3:40 pm

### **Recreation and Tourism in the Coastal Zone**

*Understanding Recreational Use on Barrier Islands: Impact, Mitigation, and Management.* Robert Buerger, Jeff Hill, John Taggart, and James Herstine, University of North Carolina at Wilmington, USA.

*Lake Erie Wing Watch: Managing Birding Ecotourism Along Ohio's Lake Erie Shore.* Linda Feix, Old Woman Creek National Estuarine Research Reserve, USA.

*The Provision of Outdoor Water-Related Recreational Opportunities in the Charleston Harbor Project Area.* Miller Grant Cunningham, Clemson University, USA.

*Coastal Tourism in Southeast Nigeria: Potentials and Constraints.* Effiom E. Antia, University of Calabar, Nigeria.

*Recreational Benefits and Coastal Area Management: An Economic Study of the Peconic Estuary System.* Jerry Diamantides, University of Rhode Island, USA.

### **New Initiatives for Resolving Dredged Material Disposal Issues**

*A Port Industry Perspective on the Dredging Process--What Works and What Doesn't.* Tony McDonald, American Association of Port Authorities, USA.

*An Environmental Perspective on the Dredging Process--What Works and What Doesn't.* Jim Tripp, Environmental Defense Fund, USA.

*A State Perspective on the Dredging Process--What Works and What Doesn't.* Rachell Friedman-Thomas, Washington Department of Ecology, USA.

*The National Dredging Team--A New Framework for Issue Resolution.*

Rich Worthington, US Army Corps of Engineers, USA; Craig Vogt, US Environmental Protection Agency, USA.

*Cooperative Advanced Planning in Action--Galveston Bay.* Dick Gorini, Port of Houston, USA.

*Bringing all the Pieces Together.* Ann Aylward, National Research Council, USA.

### **Coastal Zone Geographical Information Systems (GIS)--An Integrating Technology for Informed Decision-Making**

*Geographic Information Systems Activities at the NOAA/Coastal Services Center in Charleston, SC.* Nicholas Schmidt and Cindy Fowler, NOAA/Coastal Services Center, USA.

*Accessing Coastal Zone Data and Information Via the World Wide Web.* Dave Hastings, NOAA/ National Geophysical Data Center, USA.

*Building the "National" Coastal Zone Geographic "Framework"--The FGDC Approach.* Millington Lockwood, NOAA/Office of the Coast Survey, USA.

*Coastal Zone GIS in the State of Massachusetts.* Daniel Martin, Massachusetts Coastal Zone Management, USA.

*Technological Solutions to Coastal Zone Management.* David Beddoe, Environmental Systems Research Institute, USA.

*Development of a Coastal Zone GIS Bibliography.* Darius Bartlett, National Center for Geographic Information Analysis, USA.

### **From the Beaufort Sea to the Wadden Sea: What's New in Integrated Coastal Management?**

*Marine Protected Areas Under the Canada Oceans Act.* Helen C. Joseph, Fisheries and Oceans, Canada.

*The Emerging Practice of Coastal Management in Latin America and the Caribbean: Common Issues, Unique Situations and Creative Responses.* Donald D. Robadue, Jr., University of Rhode Island, USA.

*Coastal Zone Management in Scotland: Progress and Priorities.* Stephen M. Atkins and Rachel Harding-Hill, Scottish Natural Heritage, Scotland.

*The Wadden Sea: 25 Years of Transboundary Conservation and Management--Towards 25 Years of Integrated Coastal Management?* Jens A. Enemark, Common Wadden Sea Secretariat, Germany.

### **The Urban Coast: Past Problems and Future Solutions**

*Managing Contaminated Sediments and Habitats in Urban Estuaries of the Northeastern United States.*

Judith E. McDowell, Woods Hole Oceanographic Institution, USA.

*The Urbanizing Rhode Island Coast: Symptoms and Challenges.* Virginia Lee, University of Rhode Island, USA.

*Oceanographic Approaches to the Study of the Impacts of Point and Nonpoint Sources of Pollution in the Coastal Ocean off of Los Angeles, CA.* Burton H. Jones, University of Southern California, USA.

*Waterway Management: A GIS Method for Urban Bay Water Planning.* Gustavo A. Antonini and Paul W.

Box, University of Florida, USA.  
*Sustainable Management of Developed Deltaic Areas with Accelerated Sea Level Rise.* John Day, Louisiana State University, USA.

*Loss and Narrowing of Beaches Fronting Armored Shores on Oahu, Hawaiian Islands.* R.A. Mullane and C.H. Fletcher, University of Hawaii, USA.

*Changes in Urban Shoreline Use: Puget Sound Maritime Industries, 1962-1995.* Robert F. Goodwin, University of Washington Sea Grant Program, USA.

*Current Approaches to Northwest Indiana Sustainable Development.* Mark Reshkin, Indiana University Northwest, USA.

### **Hurricane Opal: Coastal Management Implications, Tools and Strategies for Restoration**

*Hurricane Opal.* John M. Grymes III, Southern Regional Climate Center, USA; and George W. Stone, Louisiana State University, USA.

*Hurricane Opal Damages Which Could Have Been Prevented Along the Bay County, Florida, Shoreline With a Beachfill Project.* Cheryl P. Ulrich, US Army Corps of Engineers, USA.

*Development and Implementation of a Hurricane Opal Post-Storm Beach and Dune Recovery Strategic Management Plan for the Panhandle Coast of Florida.* Mark E. Leadon, Florida Department of Environmental Protection, USA.

*FEMA Hazard Mitigation Post-Hurricane Opal: Florida Panhandle Study.* Maribel Marquez, Federal Emergency Management Agency,

USA; Darryl Hatheway, Dewberry & Davis, USA.

*Perception of Government Response Effectiveness Following Hurricane Opal.* Paul Gares, Melissa Tollinger, and Michael Slattery, East Carolina State University, USA.

*Hurricane Opal: Dune Damage and Recovery.* Robert G. Dean, University of Florida, USA.

### **Breaking-Down Institutional Barriers II**

*The Effectiveness of the Nationwide Permit Program as a Wetland Conservation Measure.* Beth Ann Shanabrook, University of Maryland, USA; Susan-Marie Stedman, NOAA/National Marine Fisheries Service, USA.

*Coastal Management in Wales: On the Periphery?* Rhoda C. Ballinger, University of Wales, UK.

*California's Ocean Resources Management Program: A Comprehensive Approach to Ocean Management for California.* Brian E. Baird and Melissa Miller-Henson, Resources Agency of California, USA.

*Coastal Hazard Mitigation in Massachusetts.* Michelle Steinberg, US Environmental Protection Agency Region I, USA.

*Waterfront Residential Reconstruction in Stratford, Connecticut after a Major Nor'Easter.* Margaret L. Welch, Connecticut Department of Environmental Protection, USA.

### **Translating Public Perception into Effective Decision-Making**

*The Process is as Important as the Product: An Examination of the Role of Public Participation in Estuary Management Plan Development in*

*the UK.* Caroline Davis, University of Portsmouth, UK.

*"To Fill a Bay or Not?", That is the Question: A Comparison of the Answers in the Osaka and San Francisco Bay Areas.* Harvey A. Shapiro, Osaka Geijutsu University, Japan.

*Coupling Action with Outreach in the Peconic Estuary Program.* Kevin McDonald, Gayle Marriner-Smith, Vito Minei, and Walter Dawydiak, Peconic Estuary Program, USA.

*Coastal Zone Management in Ireland; Past, Present and Future.* Karine Dubsky, Coastwatch Europe, Ireland.

### **Watershed Approaches to Coastal Restoration: Landscape-Scale Implementation of Coastal Habitat Restoration**

*The Coastal Wetlands Planning, Protection and Restoration Act: Regional Approaches to Salt Marsh Restoration in Louisiana.* Lee Wilson, Lee Wilson Associates, USA.

*Chesapeake Bay Habitat Restoration: A Framework for Action.* Steve Funderburk, US Fish and Wildlife Service, USA.

*New Bedford Harbor, MA: Natural Resource Restoration in a Mixed-Used Environment.* Jack Terrill and Thomas Ardito, NOAA/National Marine Fisheries Service, USA.

*Landscape-Scale Coastal Restoration in Tampa Bay.* Holly Greening, US Environmental Protection Agency, USA.

*Cooperative Efforts at Large-Scale Wetland Restoration in San Francisco Bay.* Marc Holmes, Save San Francisco Bay Association, USA.



# Wednesday

## July 23

### Environmental Justice

In this session, panelists will discuss different aspects of environmental justice. Since a preponderance of environmental justice issues arise in urban coastal regions, coastal managers need to be aware

of their importance and be prepared to address these issues.

Panelists include:

Lynda F. Carroll, US Environmental Protection Agency, USA.

Vivian Li, The Boston Harbor Association, USA.

Mark Lindsay, Aide to Ohio

Representative Louis Stokes, USA.

William Shutkin, Alternatives for the Community and Environment, USA.

Russ Lopez, Environmental Diversity Forum, USA.

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## Break 3:40 pm to 4:00 pm

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## Sessions Schedule F 4:00 pm to 5:40 pm

### Making a Difference: Innovative Citizen Stewardship Programs

*Promoting Community Stewardship:*

*The Penobscot Bay Marine Volunteer Program.* Laura M. Taylor, Maine State Planning Office, USA.

*Fishing Vessels Used Successfully on Outfall Monitoring Program for Boston.* John H. Ryther Jr., CR Environmental, Inc., USA; Steven H. Wolf and Donald J. Boyé, Jr., ENSR Consulting and Engineering, USA.

*Salt Marsh Restoration: A*

*Comprehensive Bay-Wide Approach.* Susan C. Adamowicz, Narragansett Bay Estuary Program, USA; Andy Lipsky, Save the Bay, USA.

*Hawaii's Coral Reef Initiative.* Peter Rappa and Michael Hamnett, University of Hawaii, USA; David Raney, Sierra Club, USA; Claire Cappelle, Hawaii Coastal Zone Management Program, USA; Chris Evans, Hawaii Pacific University, USA.

*International Black Brant*

*Monitoring/Education Program:*

*US/Mexico/Canada.* Nina Garfield,

National Estuarine Research Reserve Program, USA; Michael Graybill, South Slough National Estuarine Research Reserve, USA.

### It Takes a Community II

*Florida Yards and Neighborhoods Program.* Allen Garner, Florida Yards and Neighborhoods Program, USA.

*New York's Long Island Sound Coast: Regional Solutions for a Sound Future.* Sally F. Ball and Peter Walsh, New York State Department of State, USA.

*Cooperative Municipal Management of Coastal Resources: A New Paradigm for Maine's Damariscotta River Estuary.* Francine Rudoff and Jennifer Ruffing, Maine State Planning Office, USA; Thomas Ford, Planning Alliance for the Damariscotta River Estuary, USA.

*Progress in UK Harbour and Estuary Management: A Case Study of Portsmouth.* David E. Nowell, University of Portsmouth, UK.

### Hardware and Software for Coastal Decision-Making

*The Coast at Your Desktop: The Potential for User-Friendly GIS in Coastal Zone Management.* Stephen R.J. Sheppard, EDAP, Inc., USA.

*Environmental Resources Planning for Future Coastal Zone Development: Southeast Coast of Thailand.* Apisit Eiumnoh, School of Environment, Resource and Development, Thailand.

*Alewite Cove Water Quality Management: Utilizing GIS to Establish Watershed Management Priorities.* Philip W. Moreschi and Steven Anderson, Fuss & O'Neill, Inc., USA.

*Innovative Harbor Management Trends: GPS Combined with GIS for Mooring Management.* Tracy E. Lang, Town of Narragansett, USA.

*New Directions in Eutrophication Modeling.* Carl F. Cerco, US Army Engineer Waterways Experiment Station, USA.



### **Beach Nourishment and Stabilization: Recipes for a Healthy Coast**

*Comparison of Beach Nourishment along the US New England, East Coast, Gulf of Mexico, and Great Lakes Shoreline.* Hugo R. Valverde, Art C. Trembanis, Michael T. O'Brien, Tanya C. Haddad, and Orrin H. Pilkey, Duke University, USA.

*Beach Nourishment Fronting Seawalls: An Experimental Study.* Chul-Hee Yoo, Se-Kwang Engineering Consulting, South Korea; Robert G. Dean, University of Florida, USA.

*Evaluation of a Beach Nourishment Combined with a Nearshore Feeder Berm Realized at the Belgian Coast.* Peter De Wolf, Waterways Coast Division, Belgium; Rik Houthuys, Eurosense, Belgium.

*Evaluation of Coastal Erosion Management Via Beach Dewatering at Nantucket Island, Massachusetts.* William R. Curtis and Jack E. Davis, US Army Corps of Engineers, Waterways Experiment Station, USA.

### **National CZM Effectiveness Study--Findings and Recommendations**

*Introduction and Overview of Study.* Marc Hershman, University of Washington, USA.

*Wetlands Protection.* James W. Good, Oregon State University, USA.  
*Beach, Dune, Bluff, and Rocky Shore Protection.* Tina Bernd-Cohen and Melissa Gordon, Coastal Consultant, USA.

*Public Access to the Coast.* Pamela Pogue and Virginia Lee, University of Rhode Island, USA.

*Promoting Urban Waterfront*

*Revitalization.* Bob Goodwin, University of Washington, USA.  
*Promoting Ports and Water-Dependent Uses.* Marc Hershman, University of Washington, USA.  
*State CZM Manager, Environmental Group, and Academic Perspective Regarding Study Findings and Recommendations.* Speaker to be announced.

### **From Response to Restoration: The North Cape Oil Spill, South Kingstown, Rhode Island**

*Responding to the North Cape Oil Spill.* Steve Lehmann, NOAA Hazmat, USA.

*State Role in Oil Spill Response, Assessment and Restoration.* Steve Morin, Rhode Island Department of Environmental Management, USA.

*Assessing Injury to Marine Resources from the North Cape Oil Spill.* Frank Csulak, NOAA/National Ocean Service, USA.

*Restoration Planning in the Wake of an Oil Spill.* John Catena, NOAA/National Marine Fisheries Service, USA; Charlie Hebert, US Fish and Wildlife Service, USA.

*Public/Private Cooperation in Oil Spill Response, Assessment and Restoration.* Gary Mauseth, BEAK, USA.

### **Something Old, Something New: Lessons and Experiences in Estuarine Management**

*Demonstrating Action and Success Early in the Planning Process.* Nancy McKay, Puget Sound Action Team, USA.

*Benefits of Long-Term Environmental and Programmatic Monitoring.* Marsha Brockbank, San Francisco Estuary Project, USA.

*A Multi-Regional Approach for*

*Meeting Future Agricultural Water Needs with Treated Wastewater.*

Mark Alderson, Sarasota Bay National Estuary Program, USA.  
*Bringing the Lessons Learned Through the National Estuary Program into a Statewide Watershed Approach.* Richard Ribb, Narragansett Bay Project, USA.

*Vision for the Future.* Richard Volk, Corpus Christi National Estuary Program, USA.

### **Monitoring with Mussels--Benefits and Limitations to Coastal Managers**

*The Use of NS&T Data by Coastal Managers.* Thomas R. O'Connor and Gunnar G. Lauenstein, NOAA/National Ocean Service, USA.

*GulfWatch's Contribution to the Management of the Gulf of Maine.* Stephen Jones and John Sowles, University of New Hampshire, USA.

*Caged Mussel Bioaccumulation Monitoring Improves Understanding of Temporal/Spatial Patterns of Organic Contaminants in Boston Harbor.* Maurice Hall, Kenneth Keay and Michael Connor, Massachusetts Water Resources Authority, USA.

*Limitations of the Mussel Monitoring Approach--The Need for Monitoring Bioeffects Not Just Bioavailability.* William E. Robinson, University of Massachusetts Boston, USA.

*Reproductive Biomarkers and Growth Measurements Suitable for Use in Mussel Monitoring.* Judith McDowell, Woods Hole Oceanographic Institution, USA.

# Wednesday

## July 23

### **The Education of Coastal Managers: The Role of Universities**

*The Coastal Zone as a New Battlespace from the Purview of an Academic Graduate Program in Marine Science.* Charles W. Finkl, Jr., Florida Atlantic University, USA.

*Maintaining a Competitive Edge in the Marine Affairs Profession.* Amy W. Adams, Cape Canaveral Scientific, Inc., USA.

*Is CZM Curriculum Meeting the Demand for Coastal Zone Managers?* Laura W. Jodice and James W. Good, Oregon State University, USA.

*International Perspective on the Coastal Zone: Preparing Managers for the 21<sup>st</sup> Century.* Christopher L. Dyer, University of Rhode Island, USA.

*Coastal Zone Research and Education in Nigerian Universities: Past Trend, Present Opportunities and Future Goals.* Effiom E. Anita, University of Calabar, Nigeria.

### **Cooperative Ecosystem Management--Canada and U.S: Approaches and Experiences of Programs in the Gulf of Maine, Great Lakes, and Puget Sound/Georgia Basin**

This session will examine three independently established Canada-U.S. cooperative ecosystem management programs. It will examine the programs' motivations, goals, objectives, institutional structures, membership, etc. to provide insights into what these programs can gain from each other and how their experience can be applied to other cooperative environment programs.

*Gulf of Maine Program.* Larry Hildebrand, Environment Canada, Canada.

*Great Lakes Program.* Victoria Pebbles, Great Lakes Commission, USA.

*Puget Sound/Georgia Basin Program.* Holly Schneider-Ross, Puget Sound Action Team, USA.

### **Stormwater Performance Standards and Best Management Practices in Massachusetts: Their Promise for Reducing Pollutant Loads to Coastal and Inland Waters**

This session will include an overview of the stormwater guidance and the process for developing it; a new analytical tool to analyze watershed-wide pollution loading; and use of the Massachusetts State Revolving Fund to finance stormwater remediation. Speakers include:

Arleen O'Donnell and Andrew Gottlieb, Massachusetts Department of Environmental Protection, USA.

Kathy Baskin, Charles River Watershed Association, USA.

Peg Brady or designee, Massachusetts Coastal Zone Management, USA.

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## **Poster Session Park Plaza Castle 10:00 am to 8:00 pm**

*Six Year Variability of a Natural Beach.* Matthew L. Stutz, Duke University, USA. A.W. Sam Smith, Broadbeach Waters, Australia.

*NOAA/National Marine Fisheries Service, Habitat Restoration Center: Restoring Coastal Habitat in the United States.* T. Ardito, R. Bellmer, et al., NOAA/National Marine Fisheries Service, USA.

*State of Maine Code Enforcement Training and Certification Program.* Linda J. Butler, Maine State Planning Office, USA.

*The Reshaping of Scituate's Barrier Beaches: A Natural and Political Process.* Stanley M. Humphries, Fugro East, Inc., USA.

*Innovative Strategies for Coastal Protection and Restoration.* Susan Wellington Walker, Sarasota Bay

National Estuary Program, USA; and Allen Burdett, Florida Department of Environmental Protection, USA.

*Shoreline Erosion at Willapa Bay, Washington.* Vladimir Shepsis and Darla Hershberger, Pacific International Engineering, USA.

*Coastal and Marine Management Program Information System.* John H. McLeod, Ed Kruse, Maureen A. Warren, John J. McDonough III, NOAA/National Ocean Service, USA.

*Developing A Methodology, Using GIS, for Directed Growth Management in Northeast Michigan's Coastal Zone.* Theodore S. Krumbach, University of Wisconsin, USA; and Thomas R. Kellogg, Northeast Michigan Council of Governments, USA.

*Installation of a Seafloor Earthquake Monitoring System Offshore Southern California.* Catherine M. Hoffman, Minerals Management Service, USA.

*A Photogrammetric Technique to Determine the Potential Sediment Yield from Recession of the Holderness Coast, UK.* P. S. Balson, R. Newsham, and D.G. Tragheim, British Geological Survey, UK.

*Information for Decisions.* John Spencer, NRL, USA; and Martin C. Miller, USAE Waterways Station, USA.

*Two Unique State-Funded Coastal Research and Habitat Restoration Programs in Connecticut.* Jason Grear and Ron Rozsa, Connecticut Department of Environmental Protection, USA.

*Ecosystem-Based Integrated Approach to Coastal Zone Management in Central Vietnam.* Ryszard B. Zeidler, Polish Academy of Sciences, Poland.

*Great Lakes Regional Demonstration Projects: Opportunities for Coastal Management Collaboration.* Linda Feix, Old Woman Creek National Estuarine Research Reserve, USA; Shamus Malone, Pennsylvania Division of Coastal Programs, USA; Dea Larsen-Converse, Wisconsin Coastal Management Program, USA; Michael Peloquin, Minnesota Department of Natural Resources, USA; and Catherine Cunningham, Michigan Coastal Management Program, USA.

*World Prodigy Oil Spill Restoration: Four Projects in Narragansett Bay, R.I.* Thomas Ardito, NOAA/National Marine Fisheries Service, USA.

*The Characteristics and the Development of Oil and Gas in the Marginal Basins Off Southern China.* Kwan M. Chan, California State University, USA; Zheng Jianlu, South China Sea Institute of Oceanography, China.

*Coastal Protection, Restoration, Rehabilitation, Cleanup and Mitigation: Rebuilding Coastal Marshes Via Thin Layer Deposition Techniques.* Kirk Patrick Cheramie, Cullen L. Curole, and Kirk D. Kilgen, Bayou Lafourche Fresh Water District, USA.

*Implementation of an Aquatic Habitat Compensation Plan in Jordan Harbour, A Class-1 Wetland on the Shores of Lake Ontario.* S. Donald Speller, Tarandus Associates Limited, Canada.

*Threatened Ecosystems Unveiled Through New Media Educational Products.* Mary S. Clark and James W. Masterson, Harbor Branch Oceanographic Institution, Inc., USA.

*Enrolling Nature to Rebuild Beaches.* C. P. De Meyer and R. H. Charlier, Harbour and Engineering Consultants, Belgium.

*Lighthouses on the Move.* Geoffrey L. Abbott, US Coast Guard, USA.

*Species-Habitat Relational Database: A Tool For Habitat Management.* Sandra Alvarado, Corpus Christi Bay National Estuary Program, USA.

# Thursday July 24

## Plenary Session Imperial Ballroom 8:30 am to 10:30 am

### **Coastal Change: What Does it Mean for Our Health?**

It's the hot summer of the year 2020 and along U.S. coastlines thousands of tourists are afflicted with skin rashes after a day at the beach. People who have eaten raw shellfish can't remember their home telephone numbers. And emergency rooms are flooded with hundreds complaining of severe diarrhea.

Sound far-fetched? This session will address the human health impacts from growing numbers of toxic algal blooms and dangerous pathogens in coastal waters around the world. Speakers will also discuss measures to clean-up coastal waters, control related outbreaks of illness, and provide insight on ways to improve public understanding of these issues.

### **Moderator**

William Matuszeski  
Director  
EPA's Chesapeake Bay Program  
Annapolis, Maryland

### **Speakers**

#### **Walter V. Reid**

Vice President for Programs  
World Resources Institute  
Washington, D.C.  
"An Overview of Changes  
Affecting the World's Coasts"

#### **Paul Epstein, M.D., M.P.H.**

Center for Health and the Global  
Environment  
Harvard Medical School  
Cambridge, Massachusetts  
"Marine Ecosystems, Climate  
Change and Human Health"

#### **Patricia Tester**

Marine Biologist  
National Marine Fisheries Service  
Beaufort, North Carolina  
"Toxic Algal Blooms: Growth in  
Incidence and Intensity"

#### **Holly Greening**

Senior Scientist  
Tampa Bay National Estuary  
Program  
St. Petersburg, Florida  
"Air Pollution Impacts on Coastal  
Water Quality"

#### **Dianne Dumanoski**

Author and Environmental  
Journalist  
Boston, Massachusetts  
"Public Health Threats and the  
News Media"

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## Awards Presentation Imperial Ballroom 10:30 am to 11:00 am

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## Break Park Plaza Castle 11:00 am

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## Sessions Schedule G 11:30 am to 12:30 pm

### Mapping Coastal Hazards

*Airborne LIDAR Assessment of Coastal Erosion (ALACE): Development of a Multi-State Program of Beach Hazard and Habitat Mapping.* Mark W. Evans and John Brock, NOAA/Coastal Services Center, USA; William Krabill, National Atmospheric and Space Administration GFSC, USA.

*Evaluation of Coastal Erosion Hazard Areas.* Mark Crowell, Federal Emergency Management Agency, USA.

*Coastal Erosion Hazard Mapping of Maine's Beaches and Bluffs.* Stephen M. Dickson and Joseph T. Kelley, Maine Geological Survey, USA.

### International Perspectives in Integrated Coastal Management

*Kenya Integrated Coastal Area Management (ICAM) Pilot Project.* H. Ong'anda, Kenya Marine and Fisheries Research Institute, Kenya; and B.A.J. Mwandotto,

Coast Development Authority, Kenya.

*From Local Experience to National Practice: The Challenge of Integrated Coastal Management in the Indonesia Archipelago.* I.M. Dutton, R. Dahuri, S.P. Ginting, B. Crawford, J. Kusen, and L.Z. Hale, CRMP - CRC/URI, Indonesia.

### Striking a Balance: Improving Stewardship of Marine Areas

The National Research Council has undertaken a major study on the governance and management of coastal and ocean resources and space, entitled "Striking a Balance: Improving Stewardship of Marine Areas." A committee of experts was assembled by the Marine Board to develop guiding principles and effective processes for strengthening governance and management for both environmental stewardship and development of ocean resources. The study was sponsored by the National Oceanic and

Atmospheric Administration, the Minerals Management Service, and the Environmental Protection Agency.

The report presents an overview of the importance of the marine sphere to the nation and a definition of principles and criteria upon which to base improved governance and management of this vital area. An assessment is provided of the value of the marine environment and resources in economic and other terms. The report then describes a number of critical problems that need addressing and the role of existing management governance institutions and processes. A number of options are proposed for improving marine governance along with a broad array of tools for improving management. Speakers to be announced.

Session Chair: William M. Eichbaum, World Wildlife Fund, USA.

## Lunch 12:30 pm to 2:00 pm

Participants are free to explore neighborhood restaurants and cafes.

## Sessions Schedule H 2:00 pm to 3:40 pm

### Marine Resource Valuation: Incorporating Market and Non-Market Values

*The Economic Valuation of Coastal Resources: Integrating Science and the Coastal Management and Policy Decision Process.* Rodney Weiher, NOAA, USA.

*Including Public Values and Priorities*

*in Estuary Management.* Marisa J. Mazzotta and James J. Opaluch, University of Rhode Island, USA.

*The Importance of Aesthetic and Community Values in Recreational Coastal Public Works.* Gregorio Gomez-Pina, Ministry of Environment, Spain.

*Integrating Natural Resource Values*

*into Coastal Management: A Case Study of the Peconic Estuary System.* James J. Opaluch, Thomas A. Grigalunas, Jerry Diamantides, and Marisa Mazzotta, University of Rhode Island, USA.

*The Role of Economic Valuation in Decision-Making: Sustainable Salmon Management in Willapa Bay.*

# Thursday

## July 24

Katharine F. Wellman, Battelle  
Seattle Research Center, USA;  
Rachel A. Nugent, Pacific Lutheran  
University, USA.

### **Geographic Information System Applications for Comprehensive Coastal Management**

*Coastal GIS Applications in  
Wisconsin.* David Hart, University  
of Wisconsin Madison, USA.  
*Remote Sensing and GIS Applications  
for Coastal and Wetlands  
Management.* Robert W. Knecht,  
University of Delaware, USA.  
*Nonpoint Education for Municipal  
Officials.* Chester L. Arnold, Jr.,  
University of Connecticut  
Cooperative Extension System,  
USA.  
*Making Data Make Sense: Delivering  
Targeted GIS Applications to the  
Desktop of Coastal Zone Decision-  
Makers in Florida.* Christopher A.  
Friel, Florida Marine Research  
Institute, USA.  
*Implementation of a Coastal Resource  
Managers Geographic Information  
System.* Greg Benoit, California  
Coastal Commission, USA.

### **From the Black Sea to the Yellow Sea: What's New in Integrated Coastal Management?**

*Integrated Coastal Management in the  
Russian Black Sea Region.* Rebecca  
A. Smyth and Robert Bowen,  
University of Massachusetts  
Boston, USA.  
*Approaches to Coastal Zone  
Management in the Red Sea and  
Indian Ocean.* Rupert Ormond,  
Tropical Marine Research Unit,  
UK.

*Effectiveness of Donor Assistance in  
Coastal Zone Management--Sri-  
Lankan Experience.* H.N.R. Perera  
and Indra Rnasinghe, Coast  
Conservation Department, Sri  
Lanka.

*Coastal Development in Malaysia --  
Scope, Issues and Challenges.* Ooi  
Choon Ann, Department of  
Irrigation and Drainage, Malaysia.  
*Developing Institutional  
Mechanisms of Integrated Coastal  
Management at National and Sub-  
National Levels in the Republic of  
Korea.* Jihyun Lee, Korea Ocean  
Research and Development  
Institute, Korea.

### **Revitalizing Urban Waterfronts**

*Coastal Land Reclamation Processes  
and the Need for Environmental  
Planning Around Metropolitan Lagos,  
Nigeria.* Chebo K.A. Asangwe,  
University of Lagos, Nigeria.  
*Revitalizing the Glen Cove Waterfront,  
A Regionally Significant Port and  
Redevelopment Opportunity.* Peter  
Walsh, New York State  
Department of State, USA.  
*Population Growth Pressures and  
Harbor Management Planning.*  
Pamela Morey Okolita and Craig  
LaCaruba, Louis Berger &  
Associates, Inc., USA.  
*Current Initiatives Towards the  
Rehabilitation of Kingston Harbour.*  
Learie A. Miller, Natural Resources  
Conservation Authority, Jamaica.  
*Infrastructure Development in the Port  
of Klaipėda.* Jogaila Tamosaitis,  
Klaipėda University, Lithuania.

### **Advances in Dredged Material Disposal**

*Risky Business: Trying to Manage  
Contaminated Sediment.* Henry  
Bokuniewicz, State University of  
New York at Stony Brook, USA.  
*Dredged Material Management  
Planning in the Corps of Engineers.*  
Ronald R. Conner, US Army Corps  
of Engineers, USA.  
*Development for a P-C Based Decision  
Tree for Dredged Material Disposal  
Planning: Lessons Learned.* Virginia  
Treworgy, Normandeau Associates,  
Inc., USA; Craig Swanson, Applied  
Science Associates, Inc., USA;  
Deerin Babb-Brott, Massachusetts  
Coastal Zone Management, USA;  
Ann Pembroke, Normandeau  
Associates, Inc., USA.  
*Permit Coordination: Application to  
San Francisco Bay Dredging and  
Disposal.* Steven Goldbeck, San  
Francisco Bay Conservation &  
Development Commission, USA.  
*Design and Construction of  
Subaqueous Caps for Restoring  
Contaminated Coastal Areas.* Ram  
K. Mohan, Gahagan & Bryant  
Associates, Inc., USA.

### **Strategies for Reducing Institutional Gridlock**

*Managing Coastal Watersheds:  
Challenges Associated with the  
Development and Implementation of  
Ecosystem-Based Management  
Programs.* Mark T. Imperial,  
Indiana University, USA; Timothy  
Hennessey, University of Rhode  
Island, USA.  
*From the Runnins River to the Warren  
River Watershed: Pollution  
Assessment, Abatement, and  
Community Involvement.* Susan C.

Adamowicz, Narragansett Bay Estuary Program; Robert Ballou and Christopher Turner, Rhode Island Department of Environmental Management, USA.

*The Role of Socioeconomic and Political Factors in ICRM: A Case Study of Coral Reef Management in Antigua, West Indies.* Leah L.M. Bunce, Duke University, USA.

*Local, State, and Federal Roles for Modification and Deauthorization of Federal Navigation Projects in Connecticut.* Geoffrey Steadman, Private Consultant, USA.

### **Regionalization of the International Coral Reef Initiative**

Noting that 1997 is the International Year of the Reef, this session will review the success in regionalizing the International Coral Reef Initiative by examining progress in two regions, Tropical Americas and Asia/Pacific, and two global initiatives, The Global Coral Reef Monitoring Network and Global Network of Marine Protected Areas.

Session Organizer: Arthur Paterson, National Oceanic and Atmospheric Administration, USA.

### **Evolving Approaches for the Assessment and Evaluation of Integrated Coastal Management Programs**

*The Management Context of ICM Program Assessment.* Stephen Olsen, University of Rhode Island, USA.

*Assessing the Relationship Between Human Activity and Coastal Environmental Quality.* Robert E. Bowen, University of

Massachusetts Boston, USA.

*Benefit Valuation in ICM Evaluation.* David Terkla, University of Massachusetts Boston, USA.

*Evaluating Integrated Coastal Management: Lessons from Ecuador.* James Toby, University of Rhode Island, USA.

### **Agriculture in the Coastal Zone**

*The Environmental Quality Incentives Program: A New Approach to Conservation and Environmental Protection for America's Farmers and Ranchers, and Its Implications for the Coastal Zone.* Suzanne C. Schenkel and Jeffrey R. Loser, US Department of Agriculture, USA.

*Incorporating Farmland Protection into Successful Coastal Zone Management.* B. Simi Batra, Coastal States Organization, USA.

*Implications of Livestock Waste for Coastal Zone Management.* Thomas Hoban and William Clifford, North Carolina State University, USA.

*Cruisin' the Timber: An Analysis of Forestry Management and Water Quality in Coastal North Carolina.* Raphael Herz, Duke University, USA.

### **Pollution Abatement for Quincy Bay and Other Tributaries to Boston Harbor**

*Bathing Water Quality Improvement Program for Wollaston Beach, Quincy, Massachusetts.* Emily H. Cox and Denise D. Conry, Weston & Sampson Engineers, Inc., USA; David Colton, City of Quincy, USA.

*Identifying Sources of Bacterial Pollution in an Urban Storm*

*Drainage System.* Amy M. Keith, Boston Water and Sewer Commission, USA.

*Making Effective Use of Limited Resources: Using Diagnostic Methods for Relative Risk Ranking: An Example from the Massachusetts Bays Program.* James Goldstein, Tellus Institute, USA; Charles Menzie and Katherine Fogarty, Menzie-Cura and Associates, USA.

### **Urban Estuarine Management**

*Using Group Decision Analysis for Evaluating Restoration Projects.* Daniel Sheehy, Industrial Economics, Inc., USA; Susan Vik, Harvard Law School, USA.

*From Preparation to Implementation: Management Plans for Britain's Major Urban-Industrial Estuaries.* David W. Massey, University of Liverpool, UK.

*Restoration of Urban Estuaries in the Northeast: Setting Restoration Goals When Return to Baseline Condition is Impracticable--Three Case Studies.* Thomas Ardito, NOAA/National Marine Fisheries Service, USA.

*The Ashley River Estuary, Charleston County, SC.* Richard Chinniss, NOAA/Office of Ocean and Coastal Resource Management, USA.

*Coastal Monitoring in the Harbor of Montego Bay, Jamaica: Integrating Urban Demands and Environmental Constraints.* Bernward Hay, Louis Berger International, Inc., USA; Brian Howes, Woods Hole Oceanographic Institution, USA.



# Thursday July 24

## Sessions Schedule I 4:00 pm to 5:40 pm

### **Global Ocean Observing System (GOOS): Providing Information for Coastal Zone Managers**

*The Global Ocean Observing System: History and Present Status.* Eric Lindstrom, USGOOS, USA.

*Overview and Status of Coastal GOOS.* Charles N. Ehler, NOAA/National Ocean Service, USA.

*Pilot Projects to Test Criteria for Global Assessment of the Health of the Ocean.* Neil Andersen, University of Maryland, USA.

*Coastal GOOS Observations Needed to Mitigate Natural Hazards.* Margaret Davidson, NOAA/Coastal Services Center, USA.

*Marine Navigation--Physical Oceanographic Real-Time Systems (PORTS) for Decision Support.* Wayne Wilmot, NOAA/National Ocean Service, USA.

*The Implementation of Coastal GOOS in Europe.* Nic Flemming, EuroGOOS, UK.

### **Communications and Coastal Management**

In this session, communications professionals will explain how you can reach a variety of target audiences through different communications vehicles, from community-level outreach to the World Wide Web, to gain visibility and support for your program. Speakers include: Chip Young, University of Rhode Island, USA.

Andrea Cooper, Massachusetts Coastal Zone Management, USA.  
Liz Kay, Gulf of Maine Council for Marine Environment, USA.  
Carolyn Levi, New England Aquarium, USA.

Peter Lord, Providence Journal-Bulletin, USA.

### **Innovative Research-Based Approaches to Help Citizens, Government and Industry Minimize the Impact of Coastal Storms**

*Assessing the Social Vulnerability of Coastal Areas.* Susan L. Cutter, University of South Carolina, USA.

*A Risk-Based Mechanism for Funding Local Government Coastal Storm Hazard Management Services.* Richard A. Smith, Florida State University, USA.

*Private and Public Partnerships for Community-Based Hazard Mitigation.* Diana McClure, University of Rhode Island, USA.

*Using Risk Analysis and Engineering Concepts to Reduce Insured Losses from Coastal Windstorms.* Peter Sparks, Clemson University, USA.

### **Innovations in Nonpoint Source Pollution Assessment and Management**

*The Coastal Pollutant Remediation Program: How Massachusetts Grapples with Stormwater Pollution.* Stephen B. Barrett, Massachusetts Coastal Zone Management, USA.

*Development and Implementation of Pollution Control Best Management Practices: Demonstration Project at a Recreational Marina.* Jay Tanski, New York Sea Grant Extension Program, USA; Peter Needham, Coecles Harbor Marina, USA.

*Innovation in NPS Pollution Control at Marinas.* Edwin Drabkowski, US Environmental Protection Agency, USA; Samuel Pett, Tetra Tech, Inc., USA.

*Coastal Wetlands Protection: An*

*Innovative Approach to Assess and Mitigate the Impacts of Nonpoint Source Pollution.* Bruce Kent Carlisle and Jan Peter Smith, Massachusetts Coastal Zone Management, USA.

### **Preparing for the Worst: Oil Pollution Research and Technology**

*Assessment and Management Priorities of Oil Pollution: Issues in the Egyptian Marine Environment.* Hassan Awad, Alexandria University, Egypt.

*A Spill Impact and Restoration Model: Application to Coastal California.* Deborah P. French, Applied Science Associates, Inc., USA.

*Reducing Duplicative Efforts in Oil Spill Contingency Planning.* Craig K. Ogawa, J. Manuel Saenz, and Catherine M. Hoffman, DOI/Minerals Management Service, USA; Barbara Foster, Office of Oil Spill Prevention and Response, USA.

*Inlet Protection Strategies for Estuaries: A Planner's Vision, A Responder's Dream.* J.A. Simmerman, US Coast Guard, USA.

*The Cost of Oil Spills: Putting Response and Natural Resource Damage Costs in Perspective.* Douglas Helton and Robert Hicks, NOAA/Damage Assessment Center, USA.

### **Flooding and Coastal Erosion in Western Africa: New Directions**

*Forging a New Direction for Flooding and Erosion Control Measures Along the West African Coastal Zone.* Larry Awosika, Nigerian Institute for Oceanography and Marine Research, Nigeria.

*A New Approach to Erosion and*



*Flooding Control Measures Along the Victoria Beach, Lagos.* Larry Awosika, Nigerian Institute for Oceanography and Marine Research, Nigeria.

*Implications of Meteorological Forcing on Flooding and Erosion Control Measures Along the Nigerian Coastline.* Regina Folorunsho, Nigerian Institute for Oceanography and Marine Research, Nigeria.

### **Learning From Success: Effective Resource**

#### **Management and Planning**

*Effectiveness of Coastal Set-Back Standards as a Non-Structural Solution for Managing Coastal Land in Sri Lanka.* Indra Ranasinghe and H.N.R. Perera, Coast Conservation Department, Sri Lanka.

*Protecting Coastal Wetlands--The Contributions of State Coastal Zone Management Programs.* John Weber and James W. Good, Oregon State University, USA.

*Barnegat Bay Watershed (Ocean County, NJ) Demonstration Project: Best Management Practices for Recreational Boat Bottom Painting and Oil Entrapment.* Eleanor A. Bochenek, New Jersey Sea Grant, USA.

*American Shad (Alosa sapidissima): Pattern of Change in the Northern Chesapeake Bay.* John W. Foerster, US Naval Academy, USA.

*Achieving Nature Conservation Outcomes in Multiple-Objective Marine Management Regimes: Two Regional Case Studies from Australia.* Joan Phillips, Great Barrier Reef Marine Park Authority, Australia; Don Hough, Victorian Department of Natural Resources and Environment, Australia.

### **Innovations in Marine Ecosystem Management: The Gulf of Maine Council Model**

*The Role of the Governors and Premiers in Promoting the Wise Management of the Gulf of Maine.* Peg Brady, Massachusetts Coastal Zone Management Program, USA.

*Augmenting US and Canadian Federal Agency Commitments to the Marine Environment.* Neil Bellafontaine, Department of Fisheries and Oceans, Canada.

*Engaging the Business Sector in Setting the Region's Marine Priorities.* David Haney, Private Sector Council, USA.

*Building Local Capacity to Address Environmental Priorities.* Marion Kane, Maine Community Foundation, USA.

*Habitat Protection as a Means of Protecting Fisheries Resources.* Bernard Theriault, New Brunswick Department of Fisheries and Aquaculture, Canada.

### **The Coastal America Partnership: A National Overview**

*The Coastal America Partnership, Lessons Learned During Our First Year--Where Have We Been?* William L. Klesch, Coastal America, USA.

*Coastal America's Coastal Ecosystem Learning Centers--Where Are We Going?* Barbara Elkus, Coastal America, USA; Gene Cope, NOAA/National Marine Fisheries Service, USA.

*Northeast Regional Strategy--How the Partnership Established the Strategy and Its Accomplishments to Date.* William Hubbard, US Army Corps of Engineers, USA.

*Southeast Regional Strategy--How the*

*Partnership Established the Strategy and Its Accomplishments to Date.* Dennis Barnett, US Army Corps of Engineers, USA.

*Southwest Regional Strategy--How the Partnership Established the Strategy and Its Accomplishments to Date.* Peter Seligman, NCCOSC, RDT&E Division, USA.

*A National Coastal Strategy for the Future--New Directions of Coastal Resource Protection and Management.* Norman T. Edwards, US Army Corps of Engineers, USA.

### **National Ocean Service West Coast Projects**

This special panel will examine the objectives of National Ocean Service's Pacific Coast Program. The National Ocean Service (NOS) is devising more effective ways of meeting its statutory missions, refining its product and services, and seeking efficiencies in operations. Speakers will include: DeWitt John of the National Academy of Public Administration, commenting on the integration of NOS functions; Will Travis, San Francisco Bay Conservation and Development Commission, assessing the success of the development of new information tools for coastal managers; Josh Collins, San Francisco Estuary Institute, speaking on the topic of federal-local collaborative efforts.

### Poster Session Park Plaza Castle 10:00 am to 5:00 pm

*Ecosystem Degradation and Potential Restoration at Lower Cape May Meadows, New Jersey.* Carmen G. Zappile, US Army Corps of Engineers, USA.

*Joint Agency Cooperation to Ensure Safety and Protection of the Environment Through Pipeline Inspection.* Theresa P. Bell and Catherine M. Hoffman, Minerals Management Service, USA. James Hart and Greg Pelka, California State Lands Commission, USA.

*A New Type of Coastal Map to Support The Coastal Zone Safeguard.* F Marabini, Instituto per la Geologia Marina, Italy.

*Mapping Seabed Environments in the Massachusetts Bay Coastal Region.* Page Valentine, Sara Stillman, Edwin Roworth and William Danforth, US Geological Survey, USA.

*High Resolution Geologic Mapping of the Coastal Ocean: Application to Contaminant, Habitat and Sea Floor Management.* Bradford Butman, Marilyn Buchholtz ten Brink, William C. Schwab, Page C. Valentine, Harley J. Knebel, David C. Twichell, William W. Danforth, and Kathryn M. Scanlon, US Geological Survey, USA.

*The Restoration of Mill Meadows Tidal Wetland.* Ron Rozsa, Connecticut Department of Environmental Protection, USA.

*Coastal Zone of South Bahia, Brazil: How Deforestation Caused Erosion.* Henri Dupont, Federal University of Minas Gerais, Brazil.

*Oscillating Water Column Type Wave Power Plant with Tapered Harbour Walls.* T.K.D. Tennakoon, National Aquatic Resources Agency, Sri Lanka.

*Boat Usage At Several Marinas Around Charleston, S.C..* Stephen E. Moore, South Carolina Department of Health and Environmental Control, USA.

*Evaluation of the Designation of a Dredge Disposal Site, Cape Arundel, Maine.* Jeffrey A. Reidanauer, Louis Berger & Associates, Inc., USA; Dale Leavitt, Woods Hole Oceanographic Institution, USA; David Tomey, US Environmental Protection Agency Region I, USA.

*Seafront Promenade: An Urban Solution for Havana's Seawall Protection.* Rolando Pajon Brache, Haydee Abad Galguera, Marta Vega Laliga, Departamento de Obras Maritimas, Cuba.

*Atlantic Coast of New York Monitoring Program.* David N. Rackmales, New York District Army Corps of Engineers, USA; Fred J. Anders and Mohabir Persaud, Department of State (New York), USA. Jay Tanski, State University of New York at Stony Brook, USA. Andrew Morang, US Army Corps of Engineers, USA.

*Using Ecological Engineering Methods to Restore Fisheries Habitat in Coastal Louisiana.* Tim Osborn, Gregory Miller, and Richard Hartman, NOAA/National Marine Fisheries Service, USA; Van Cook, Louisiana Department of Natural Resources, USA.

*Coastal Tidal Wetlands Management in Mexico and Ecuador: Strategies and Solutions.* Heather Leslie, Harvard University, USA.

*A Collaborative Process to Map Ecologically Critical Resources--Eelgrass Beds and Salt Marsh Habitats--in Narragansett Bay, Rhode Island.* Helen Cottrell, Rhode Island Department of Environmental Management, USA; Irene Kenenski, University of Massachusetts Amherst, USA.

*Ecosystem Management in San Diego Bay.* Mitchell Perdue, Naval Facilities Engineering Command, USA. Robert Hoffman, NOAA/National Marine Fisheries Service, USA.

*Implementation of the Oil Pollution Act of 1990: A Program Designed for Offshore California.* J. Manuel Saenz, Craig K. Ogawa, and James R. Grant, Minerals Management Service, USA.

*Habitat Mapping of the Western Gulf of Maine Seafloor: A Geological Approach.* Joseph T. Kelley and Stephen M. Dickson, Maine Geological Survey, USA; Walter A. Barnhardt, Daniel F. Belknap, and Alice R. Kelley, University of Maine, USA.

*Shoreline Change Mapping and Analysis Along the Massachusetts Shore: Trends, Uses, and Future Implications.* James F. O'Connell, Massachusetts Coastal Zone Management, USA.

*SHOALS: Charting the Coastal Zone.* Joan Pope, W. Jeff Lillycrop and Larry Parson, US Army Corps of Engineers, USA.

*Visualization of Chesapeake Bay Modeling.* Angelica L. Gutierrez, Chesapeake Bay Program Office,

USA; Tom Boongaard, National Environmental Supercomputing Center, USA.

*An Animal Waste Nutrient Mass Balance for the Chesapeake Bay Watershed Model.* Michael W. Palace, US EPA/Chesapeake Bay Program, USA.

*Salt Marsh Response to Loss and Restoration of Tidal Flow.* J. List and M. Dionne, Wells National Estuarine Research Reserve, USA.

*Co-operative Watershed-based Non-point Source Management Planning.* Carol Hansen, USAE Waterways Experiment Station, USA.

*Integrated Coastal Zone Management: Kenya's Experience.* Clive Migosi Angwenyi, Kenya Marine and Fisheries Institute, Kenya.

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## Roundtables 12:00 pm to 2:00 pm

Roundtable discussions will be during lunch on Wednesday, July 23. Space is limited at each roundtable, and you must sign-up for a roundtable discussion during on-site registration in Boston.

### **Coastal Zone Management in the Eastern Caribbean**

This roundtable discussion will review the coastal management efforts of the small developing nations of the eastern Caribbean, explore the lessons learned, and consider prospects for the future within the context of an Islands System Management Approach to Coastal Resources Management. Roundtable Organizer: Vasantha Chase, Organisation of Eastern Caribbean States, West Indies.

### **The Benefits of Integrated Coastal Management**

The objectives of this roundtable are: (1) to identify and classify the

benefits that conceptually could be obtained from integrated coastal management (ICM); (2) to describe the various methods for estimating the direct benefits from ICM; (3) to describe the methods for estimating the indirect benefits (economic impacts) from ICM; and (4) to describe some of the difficulties inherent in estimating benefits from ICM. These objectives would be accomplished in a series of four integrated presentations, using a "prototype" coastal system to illustrate concepts and problems. Roundtable Organizer: Charles N. Ehler, NOAA/Office of Ocean Resources Conservation and Assessment, USA.

### **Legislating a New Fisheries Code: The Philippines Experience**

This roundtable discussion will focus on a non-government organization (NGO) network called the

NGO-Technical Working Group for Fisheries and Aquatic Reform. This group was formed with the original mandate to provide technical assistance to fisherfolk federations in lobbying for a new fisheries code. As the advocacy work with Congress continues to intensify, the NGO-Technical Working Group looks forward to expanding its network to the different regions of the country and involving more NGOs and fisher's organizations in the struggle for pro-fisherfolk legislation. Roundtable Speaker: Francis Perez, NGO-Technical Working Group for Fisheries and Aquatic Reforms, Philippines.

### **The Oyster Recovery Partnership**

This roundtable discussion will provide an introduction to the Oyster Recovery Partnership and a discussion of their programs. The



Partnership is a co-venture of aquaculturists, seafood harvesters, and environmentalists that seek simultaneously to rebuild benthic habitats and to develop a sustainable fishery in six major tributaries of the Chesapeake Bay. Roundtable Speaker:

Robert M. Pfeiffer, The Oyster Recovery Partnership, USA.

### **Assessment of the Alaska Coastal Management Program: Mending the Net**

This roundtable discussion will describe the results of the Assessment of the Alaska Coastal Management Program (ACMP) and the remarkable effort to engage all of the ACMP participants in the process. In 1994, Alaska initiated an "Assessment of the ACMP" and has since hosted two statewide work sessions and numerous focus group discussions; conducted surveys, interviews, and research projects; and reviewed several analytical "white papers" prepared by affected state agencies. Roundtable Speaker: Sara L. Hunt, Alaska Office of the Governor, USA.

### **Technical Standards to Protect the Beneficial Functions of Land Subject to Coastal Storm Flowage**

This roundtable will summarize the technical standards recommended by the Coastal Floodplain Task Force for adoption into Massachusetts Wetlands Protection Regulations. Proper implementation of these standards can reduce storm damage and flooding impacts and protect important environmental and economic resources.

Roundtable Speakers:

James F. O'Connell and Richard R. Zingarelli, Massachusetts Coastal Zone Management, USA.

### **The "New" Dilemma for National Marine Sanctuaries, Compatible Uses and User Conflicts**

This roundtable will discuss both compatible use and user conflicts, and it will present examples of how the National Marine Sanctuaries Program has and is addressing such issues, possible conflicts in the future, and steps that the National Marine Sanctuaries Program must take to address upcoming conflicts. Case studies on research projects, resource uses, and recreational uses will be discussed. Roundtable Speakers:

Elizabeth Moore and Michael Weiss, NOAA, USA; June Cradick, Florida Keys National Marine Sanctuary, USA.

### **Developing Balanced Partnerships: Drawing Non-Government Organizations, Governments, and Citizens Together in Coastal Stewardship**

This roundtable will address how working with and involving the public in problem-solving will show that a very successful strategy is the cultivation of citizen stewards. Through experience we know that a volunteer stewardship network works, and examples will be highlighted. Roundtable Speaker: Mary Enstrom, The Nature Conservancy, USA.

### **Moratoria on the Outer Continental Shelf: A Historical Perspective**

This roundtable will look at the evolution of moratoria on the Outer Continental Shelf, the lessons learned, unresolved issues, and knowledge gaps. Roundtable Speaker:

Judy Wilson, Minerals Management Service, USA.

### **The California Coastal Act at 25: A Winner, Warts and All**

This roundtable will distill the roles and importance of the key players in California's Coastal Program, which include legislators and governors, Commissioners and staff, applicants and lobbyists, citizen groups and the courts. Through succinct case analysis, this discussion describes how each of these interests have helped shape the current coastal landscape. Roundtable Speaker: Jack Liebster, California Coastal Commission, USA.

### **What this Place Needs is a Good Hurricane**

In this roundtable, case studies from two beachside communities that were hit hard by Hurricane Hugo will be presented. The immense destruction provided an opportunity to reconstruct larger houses over the remains of the old structures, and as a result there are more higher value homes at risk today than before Hugo. The only consolation is that the new houses have been built according to higher standards than the houses they replace. Roundtable Speaker: Stephen E. Moore, South Carolina Department of Health and Environmental Control, USA.



## **Prospects for International Coastal Zone Management in the Black Sea Region**

This roundtable will offer an update on numerous international coastal management (ICM) related initiatives in the Black Sea. Special focus will be on the status of the Bulgarian ICM program, which features the development of local coastal management plans in 14 coastal 'oblasts.' Roundtable Speaker:

Konstantin R. Galabov, Coastal Zone Management Office, Bulgaria.

## **Discovering Coastal Zone Management Issues and Approaches Across the Arctic**

This roundtable is conceived as a dialogue among the participants with the goal of discovering how coastal management and issues of mutual concern are approached by the Arctic nations. Information that will be shared will include some of the other venues under which Arctic environmental protection and sustainable development are addressed. Roundtable Speakers:

Gay Leslie, US Department of Energy, USA; and Maureen McCrea, Coastal Zone Management Alaska, USA.

## **Fish for Lunch**

This roundtable will focus on the tendency in Canada for coastal zone managers to shy away from involvement in fisheries management issues. Enhanced awareness and future involvement of coastal zone managers and scientists in fisheries issues is largely desirable and probably inevitable, especially in areas such as environmental impact of fisheries and community economic

development. Experience in SW Nova Scotia will be discussed.

Roundtable Speakers:

Arthur Bull, Digby County Inshore Fishermen's Association, USA; Mark Butler, Ecology Action Centre, USA; and Bill Williams, SW Nova Scotia Fixed Gear Association, USA.

## **Controlling Coastal Nonpoint Pollution--A Key Component of Effective Coastal Management**

This roundtable will describe what has been accomplished in the intervening six years since the 1990 enactment of section 6217 of the Coastal Act Reauthorization Amendments, entitled "Protecting Coastal Waters." The challenges facing government and the private sector in meeting the goals of section 6217, and the steps needed to meet those challenges will be discussed.

Roundtable Speaker:

Marcella Jansen, NOAA/Office of Ocean and Coastal Resource Management, USA.

## **Incorporating the International Dimension: Issues and Challenges**

This roundtable will focus on key changes in international regulations in the late 1990's relevant to coastal zone management (CZM) in critical sectors, including MARPOL, Annexes IV and V, fisheries management and others. This roundtable will discuss how CZM programs are responding to these changes with new techniques in training, education, auditing, and management.

Roundtable Speaker:

R.P. Barston, University of Wales Cardiff, UK.

## **International Whale Conservation**

This roundtable will discuss some of the most effective whale conservation measures currently being adopted by countries throughout the world and the innovative initiative by the International Whale Conservation that will utilize health assessments of various whale populations to track global ocean pollution trends. Roundtable Organizer: Tom Tilas, Metcalf & Eddy, USA.

## **The Coastal Ecosystem Learning Center Concept**

Coastal America has embarked upon a new outreach initiative in which the partnership agencies are collaborating with coastal educational facilities, primarily aquariums, to increase the public's understanding and appreciation of our coastal resources. The concept will be described and discussed along with ideas on how to improve the concept and how to collaboratively achieve the objective of increasing the public's appreciation for coastal resources.

Participants will include representatives of designated Coastal Ecosystem Learning Centers, Coastal America partners and other individuals interested in promoting education and outreach activities.

Roundtable Organizer:

Virginia K. Tippie, Coastal America, USA.

## **Coastal Restoration and Protection Projects: Lessons Learned**

Project managers from the Coastal America partnership agencies will engage in a discussion of the procedural lessons learned while imple-

menting collaborative restoration projects. Emphasis will be placed on those lessons learned that furthered the partnership process in an effort to achieve greater project success in this time of reduced agency budgets and personnel. Participants will include non-government representatives and other individuals interested in implementing collaborative partnership restoration and protection projects. If enough interest is generated projects could be subdivided by category; e.g., endangered species, wetlands, dune habitat, etc. Roundtable Organizer: Virginia K. Tippie, Coastal America, USA.

### **Assessing the Impacts of Septic Tanks on Coastal Resources and the Political Implications of Regulatory Change**

South Carolina is considering regulatory changes to its Septic Tank Permitting Program, which focus on the development of different standards for permits issued in the Coastal Zone. These proposed changes were brought about by several legal challenges to developments in the coastal zone, based on the failure of the State to assess the potential negative cumulative impacts of septic tanks on coastal resources. The question to be resolved in this process is whether the State can apply stricter standards to septic tank permits in the coastal zone, which vary from the standards applied in the rest of the State. The political implications are significant, since a regulatory change may result in many developable acres in the coastal zone not qualifying for septic

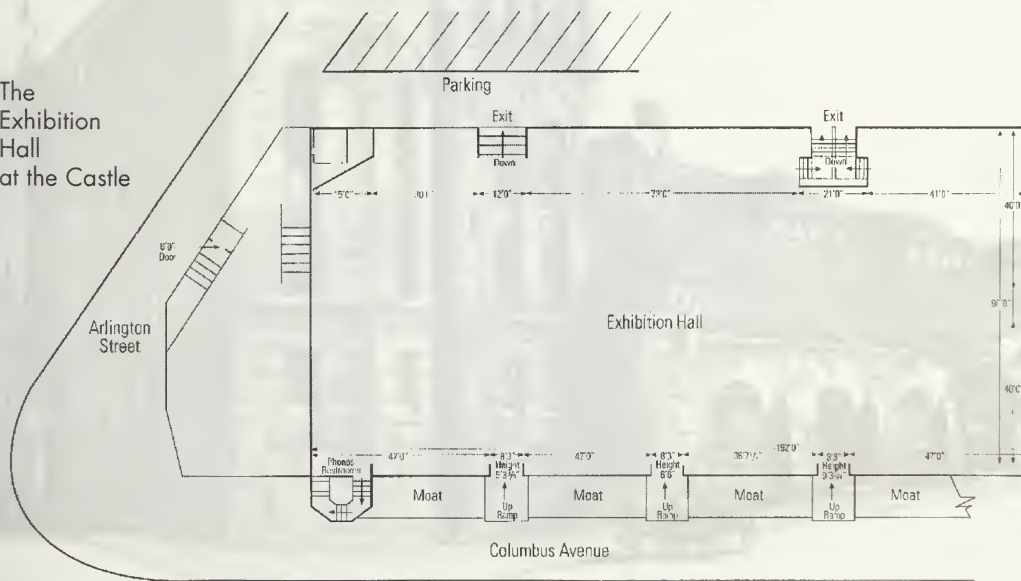
tanks. Roundtable Speaker: Mary D. Shahid, Esq., South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management, USA.

### **European Coastal Code of Conduct**

The European Union for Coastal Conservation (EUCC) is in the process of developing a European Coastal Code of Conduct (the Code). The purpose of the Code is to provide clear and realistic conservation guidelines for all those who use the coast or manage coastal resources. It deals with direct threats (e.g., habitat destruction and spatial developments) as well as indirect threats (e.g., habitat degradation and pollution health impacts). This roundtable will discuss the contents of the Code, which includes: an overview of trends in different socio-economic sectors, such as agriculture, defense, fisheries, and tourism; an analysis of their impacts and a discussion of "good practice" examples; and a review of management tools and incentives that simultaneously promote economic and conservation interests. Roundtable Speaker: Kelly Rigg, European Union for Coastal Conservation, The Netherlands.



The Exhibition Hall at the Castle



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